

**Kentucky Public Pension Work Group
Defined Contribution Plan Subcommittee**

**FINAL REPORT:
10/30/08**

Personnel Cabinet Secretary Nikki Jackson, Chair

**Subcommittee Staff
Greg Haskamp, Finance Administration Cabinet**

**Kentucky Public Pension Work Group
Defined Contribution Plan Subcommittee
Subcommittee Members:**

**Chair: Secretary Nikki Jackson,
Personnel Cabinet**

**Larry Klein, Asst. Covington City
Manager**

Senator Charlie Borders

Sylvia Lovely, Ky. League of Cities

**Martin Bell:
Jefferson Co. Public Schools
Ky. Assn. School Administrators;
Ky. Assn. School Superintendents;
Ky. School Board Assn.**

**Brent McKim, Jefferson County
Teachers' Assn.**

**James E. Parsons,
Taft Stettinius & Hollister LLP**

**Robert Brown, Executive Director
Ky. Deferred Compensation**

**Jack Reckner,
Ky. Assn. of Fire Chiefs**

**Mike Burnside, Executive Director
Ky. Retirement Systems**

**Gerald Stewart,
Ky. Assn. of Firefighters**

J.D. Chaney, Ky. League of Cities

**John Stovall,
Teamsters**

Representative Mike Cherry

James Sproul, Ky. Education Assn.

Tom Denton, Ky. Education Assn.

**Richard Tanner, Ky. Assn. of
Magistrates and Commissioners**

**Alan Eskridge, Assistant Secretary of
State**

**Tina Tipton, Ohio Valley Educational
Cooperative**

Jay Fossett, Covington City Manager

Mike Funk, Fraternal Order of Police

**Judge Tommy Turner, Larue Co.
KACO; Ky. Co. Judges Assn.**

Daphne Goodin, Ky. Education Assn.

John Wilkerson, Ky. Education Assn.

**Gary Harbin, Executive Director
Ky. Teachers' Retirement System**

**Bill, Hornig,
Louisville Metro Government**

Martha, Huffer, Ky. Education Assn.

**Lee Jackson, Ky. Assn. of State
Employees**

Kentucky Public Pension Work Group
Defined Contribution Plan Subcommittee
Executive Summary:

As of June 30, 2007 the total unfunded liability for both the Kentucky Teachers' Retirement System and the Kentucky Retirement Systems was \$26 billion for pension and healthcare benefits combined. Kentucky is one of 48 states that offer a traditional defined benefit pension plan to their employees as the primary vehicle of retirement income. It has been supposed that Kentucky's existing unfunded liability or employer costs might in some way be diminished by converting some or all of its employees to a defined contribution (or 401(k) style) retirement plan.

As stated in Governor Beshear's May 29th, 2008 executive order, the Kentucky Public Pension Work Group is charged with "Reviewing the experiences of other state public pension systems that have employed defined contribution or annuity-type plans for their employees, and analyzing the effectiveness of their employment in Kentucky." To that end, the Defined Contribution Plan Subcommittee was established.

In conducting a study of nationwide public pension plans, the subcommittee undertook three case studies; heard testimony from three non-partisan national experts on public pension plans; interviewed four current and former public pension plan administrators from outside the Commonwealth, including two of the strongest defined contribution plans in the country; engaged two economists and two actuaries with extensive experience in both public and private plans; took testimony from Kentucky's *existing* defined contribution plan administrators with the Kentucky Public Employees Deferred Compensation Authority; and finally, heard the story of an individual who had participated in a tried-but-failed defined contribution plan in West Virginia. It should be noted that simultaneously to the subcommittee's work; the current financial markets are volatile, giving extra weight to the concerns of this subcommittee on plan type within the established retirement systems.

The subcommittee has found that both defined benefit and defined contribution plans can offer their employees unique benefits depending upon plan design and features. However, defined benefit plans provide the states who offer them with certain economic efficiencies that reduce employer costs for career employees, and lessen the annually required contribution (ARC) payments that the state has to make toward pension benefits regardless of defined benefit or defined contribution plan type.

A defined contribution plan of any design will not reduce or eliminate the unfunded liability that has already accrued. Nor will a defined contribution plan significantly reduce the growth of future unfunded liabilities.

Kentucky has an outstanding DC plan through the existing deferred compensation program. Many states utilize voluntary programs such as Kentucky's deferred compensation to supplement individual savings in retirement. Utilization in Kentucky is 23% and strategies should be developed to increase participation, while maintaining the voluntary aspects of the program.

**Kentucky Public Pension Work Group
Defined Contribution Plan Subcommittee
Subcommittee's Charge:**

As defined in the May 29, 2008 Executive Order (2008-460), the charge of the defined contribution plan subcommittee is:

“Reviewing the experiences of other state public pension systems that have employed defined contribution or annuity-type plans for their employees, and analyzing the effectiveness of their employment in Kentucky”

**Kentucky Public Pension Work Group
Defined Contribution Plan Subcommittee
Summary of Meetings:**

July 31st Meeting 1: Introductions, protocols for meetings, overview of meetings, and format-feedback reactions.

August 14th Meeting 2: Kentucky's current offering in the area of defined contribution plans: Presentation by the state's existing deferred compensation authority.

Presenters: Bob Brown, Executive Director
Kentucky Public Employees' Deferred Compensation Authority

September 18th Meeting 3: Featured Presentations on the national perspective for public pension plans in dealing with defined contribution plan offerings.

Presenters: Keith Brainard, Research Director
National Association of State Retirement Administrators

Beth Almeida, Executive Director
National Institute on Retirement Security

William Fornia, FSA, Consulting Actuary and Co-Author
"A Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Pension Plans."

September 29th Meeting 4: Presentation of the states' perspective: What has been the specific experience of defined contribution plans among some other states? First state to present will be West Virginia.

Presenters: Anne Lambright, Executive Director
West Virginia Consolidated Public Retirement Systems

Debra Elmore, 3rd Grade Teacher Anstead Elementary

September 30th Meeting 5: Continuation of the states' perspective: Representatives from Florida will be brought in to discuss the states Defined Contribution model.

Presenters: Jim Francis, Former Senior Investment Policy Officer & Economist
Florida State Board of Administration

Dr. Jay Rayburn, Florida State University
Principle Consultant for Implementing Florida's Hybrid Plan
Employee Education Program

**Kentucky Public Pension Work Group
Defined Contribution Plan Subcommittee
Summary of Meetings:**

October 17th Meeting 6: Presentation by the subcommittee's actuarial consultant; beginning of stakeholder testimony.

Presenters: Paul Cleary, Executive Director
Oregon Public Employees Retirement System

Patrick Welsh, Consulting Actuary

October 24th: Draft Report to Subcommittee Members

October 29th Meeting 7: Testimony from stakeholders; Summary.

Kentucky Public Pension Work Group
Defined Contribution Plan Subcommittee
Summary of Testimony 8/14/08:

Meeting 2: Kentucky's current offering in the area of defined contribution plans: Presentation by the state's existing deferred compensation authority.

Presenters: Kentucky Public Employees' Deferred Compensation Authority

Robert C. Brown, CRA, CRC
Executive Director

Christopher J. Helvey
Staff Assistant

Connie B. Smith
Executive Staff Advisor

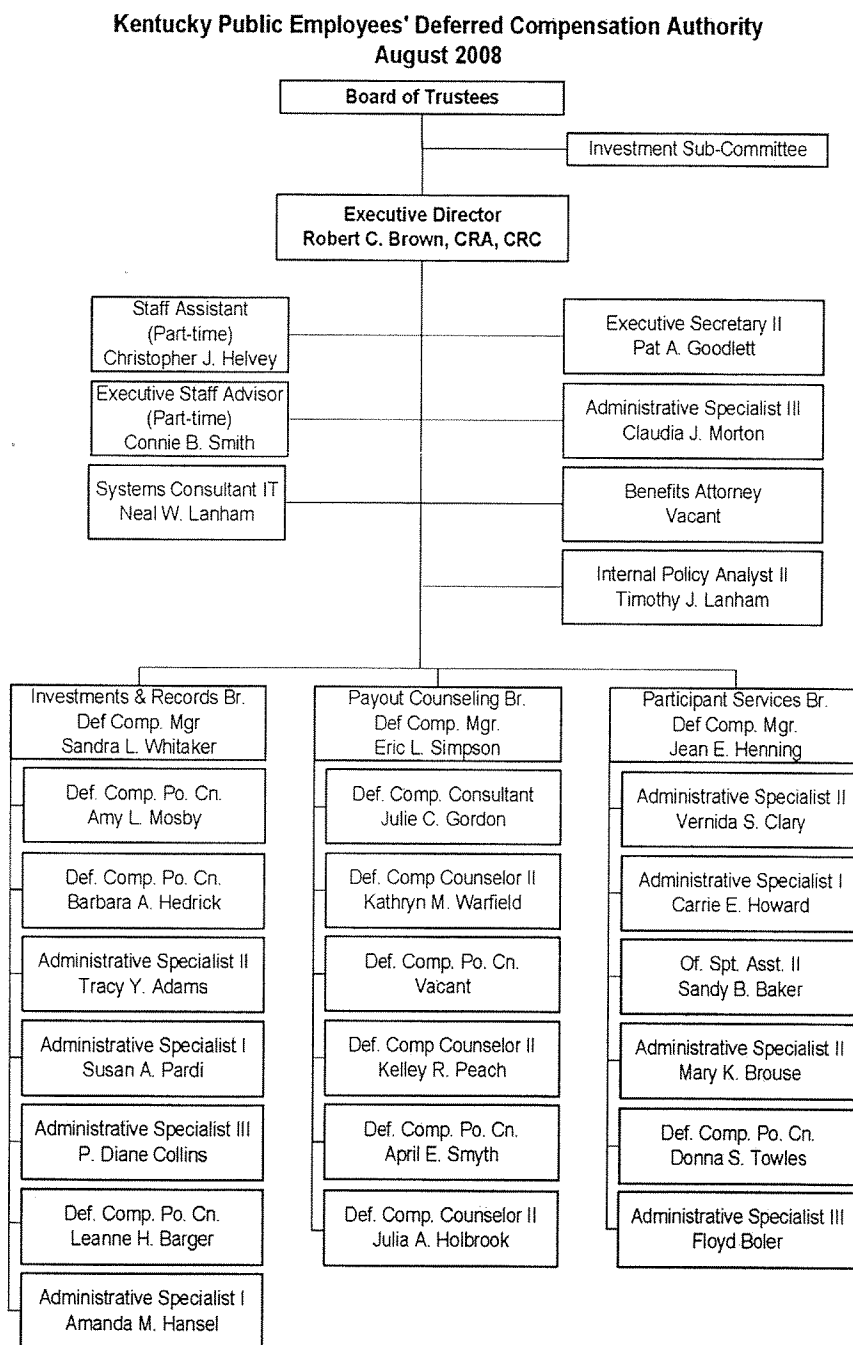
Neal W. Lanham
Systems Consultant IT

Bottom Line Up Front: Kentucky offers voluntary defined contribution plans through the Kentucky Public Employees' Deferred Compensation Authority; the existing plans are utilized by 23% of employees.

Background: Kentucky's existing defined contribution plan options are administered by the Kentucky Public Employees' Deferred Compensation Authority (KDC). All plans are strictly by voluntary participation.

- KDC was established in 1975 by KRS 18a.230-275.
- Elevated to Authority status in 1994 pursuant to Executive Order 94-1235
- Plans currently offered by the system are identified by Internal Revenue Codes:
 - 457: Established in 1974
 - 401(k); Roth 401(k): Established in 1985
 - Deemed IRAs both traditional and Roth
- KDC is administratively attached to the Personnel Cabinet. The Authority operates under the auspices of a 7-member Board of Trustees.
 - There are 3 ex-officio members
 - 4 members serve by appointment of the Governor
 - One must have 5 years banking/investment experience
 - One must represent non-state employers
 - Members serve for 4 year terms
 - The board meets quarterly
 - A three member investment subcommittee exists to expedite the business of the board: consisting of 3 board members, who make recommendations for approval.

**Figure 1:
Administration**



26 Full-time Employees
2 Part-time Employees
2 Vacancies

Plan funding: No general fund dollars are used in support of KDC. All costs are borne by participants. By nature of being a defined contribution plan KDC does not carry unfunded liabilities.

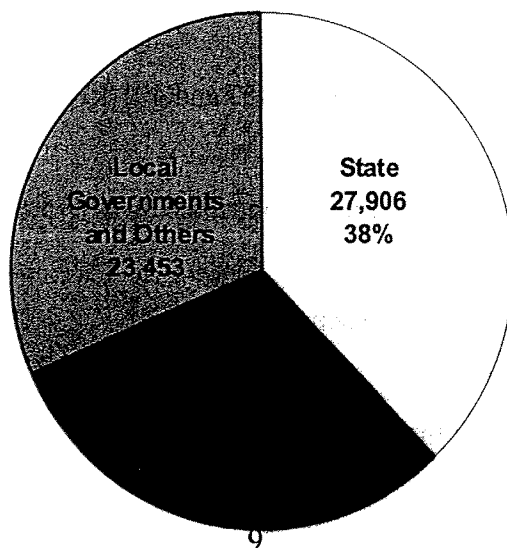
- KDC assets as of June 30, 2008 = \$1.6 billion (approximately)
- FY 2008: Revenue \$7.6 million; Expenditures \$6.2 million (approximately)
- In-house administrative cost \$2.0 million (approximately)
- KDC has two primary sources of revenue
 - Asset fees: assessed to individual participant accounts
 - Expense reimbursements (revenue sharing): which is received by some participating mutual fund companies
- Average participant fees are .70% or approx 70 basis points

Plan participation: Currently there are 850+ employers; approximately 1,000 eligible to participate. The Largest employer not participating is Louisville Metro Government

- Eligible jurisdictions
 - KY State government
 - Public School Systems
 - Public Universities
 - Local Governments
- Employers participate in one of two ways
 - Statute (automatic):
 - State Government; All public schools/public universities
 - Joiner Agreement (elective)
 - Local Governments

Figure 2: Employee Participation

Total 73, 865 (June 30, 2008) Includes active, retired, and terminated employees



- Estimated number of eligible employees: 206,600
 - Local Governments and Others 43,200 (21%)
 - State Employees 41,700 (20%)
 - Education 121,700 (59%)
- Estimated total KDC participation rate: 23%
- Participation rates by employer type:
 - Local Governments and Others 40%
 - State Employees 39%
 - Education 12%
- Reasons why KDC participation not higher
 - Very few KDC employers provide an employer match
 - Participation rates escalate to 80% and higher when a match introduced
 - KDC School System match campaign has been in progress for one year
 - Successful introduction to 11 school systems
 - Does not require a large match
 - Financially unable
 - Education participation rates are lower due to the availability of 403(b) and other 457 plan alternatives in schools/universities
- KDC is experiencing increased participation
 - Averaging approximately 150 new enrollments each week

Plan types and optional features:

- KDC offers the following:
 - 457 Plans
 - 401(k) Plans
 - Roth 401(k) options
 - Deemed IRAs (Traditional/Roth)
 - Investment Advice Program (in design stage)
 - 403(b) (under study)
- Kentucky is 1 of 12 states offering both 457 and 401(k) plans
- Advantages of 2 plans
 - Opportunity for participants to contribute up to \$15,500 in each plan/year
 - \$31,000 a year pre-tax
 - Age 50 catch-up
 - Additional \$5,000 to each plan
 - \$41,000/yr pre-tax
 - Special 3 year 457 plan catch-up

- \$46,500 (<age 50)
- \$51,500 (>age 50)
- Traditional optional features offered
 - Hardship withdrawals
 - Plan loans
 - Catch-up
 - Voice Response System
 - Website
 - In-Service Rollovers

KDC investment options:

- 27-high quality / well known mutual funds (Most states offer 11-20)
 - Fidelity, Vanguard, Federated, T. Rowe Price, America Funds, etc.
- 1 – Stable Value Fund (Fixed Contract Fund)
 - Investment contracts issued by insurance companies, banks and other financial institutions
 - Custom fund for KDC
 - 90% of assets AAA rated securities
 - Most popular fund option
- Two Investment Categories
 - Life Cycle (out source management)
 - Expected to represent 60% all 401K/457 Plan assets in 10 years
 - Typically out perform do-it-yourself category by 200 basis points
 - Do-it-yourself
- KDC 10 year estimated rate of return (NRS computed)
 - FCF 4.86%
 - Mutual Funds 6.74%
 - Total Weighted Return 6.14%
- KDC Plan return comparison (provided by Aon Investment Consulting)

Figure 3: Aon created broad-based benchmarks for 3 years ending 6/30/08

	Aggregate Return thru Jun '08				Jul '05 thru Jun '08	
	3 Month	6 Month	1 Year	2 Year	Cumulative	Annualized
KEDCA	0.84%	-4.23%	-1.80%	11.99%	22.58%	7.02%
Fidelity Freedom 2010	0.18%	-4.89%	-3.44%	10.08%	17.41%	5.50%
Vanguard Balanced Index	-1.33%	-6.08%	-4.86%	8.88%	14.76%	4.70%
Median Balanced Fund	-1.00%	-6.73%	-5.58%	8.14%	15.47%	4.91%

- Aon's Comments on KDC rates of return
 - Stable Value Fund (FCF)
 - quite competitive public/private sector plans

- Mutual Funds
 - very good return public/private sector plans
- Total weighted return
 - above median / top 1/3 of Plans in public/private sector

Services provided by KDC staff:

- Customer service KDC's primary initiative
 - Personalized face-to-face service
 - Telephone service from a live individual
- KDC's performance in the area of services and benefits excels compared to the other state programs
 - KDC is unaware of another state program providing a similar level of participant services
 - No other state plan offers the level of benefits provided by KDC

Service Branches:

- Investments and Records Branch services
 - Oversees investment of ALL participant deferrals
 - Average number investments per month – 12 (144/year)
 - Average amount invested per month – \$11.5 million (\$138 million/year)
 - Assists participants with rollovers in
 - Average number rollovers per month –65 (780/year)
 - Average amount of rollovers each month –\$1.4 million (\$16.8 million/year)
 - Processes participant loans
 - Average number loans processed per month –225 (2,700/year)
 - Average loan volume each month -\$1 million (12 million/year)
 - Oversees imaging of all Authority documents
 - Average number of documents imaged per month –20,000 (240,000/year)
- Payout Counseling Branch Services
 - Processes participants periodic and non-periodic payouts
 - Average number payouts per year – 6,900 (totaling \$89.4 million)
 - Processes financial hardship/unforeseen emergency withdrawal requests
 - Approximately 370 a year
 - Process requests to purchase service credits from DB plans
 - Average number transfers per year –1,500
 - Amount transferred to date –\$210 million (approximately)
- Participant Service Branch services
 - Offers a variety of customer services such as

- Assistance in making exchanges, allocation changes, increases, decreases and ceasing deferrals
- Reset passwords for website -- Average 2,400 calls a year
- Accept and approve beneficiary designation forms -- Average 19,200 a year
- Explain differences between 457 and 401(k) plans
- Answer participant statement questions
- Enters and audits weekly business
 - Average 10,000 forms per month –120,000 a year
- Mails weekly billings to payroll clerks -- Average 8,000 per month – 96,000/year
- Mails self-billings for participant loan repayments weekly
 - Average 6,000 per month –72,000/year

Summary from KDC:

- Economic Impact to Commonwealth
 - 14,000+ participants received distributions
 - Distributions totaled \$106+ million
 - Many of these dollars flowed back into local economies
- Strengths
 - KDC Program excels in area of plan design
 - One-Stop-Shop concept set standard for all states
 - KDC's level of personal service unsurpassed
 - Outstanding custom service is paramount goal
 - Features of KDC program give KDC a competitive advantage over other states
 - No other state plan offers
 - 457
 - 401(k)
 - Roth 401(k)
 - Deemed IRAs (traditional / Roth)
 - Professional investment advice program (coming soon)
 - One of the nation's premier governmental defined contribution plans
- Weaknesses
 - Website adequate but needs improvement to make more user friendly
 - Pursue ways to further lower participant fees
 - Fund options well diversified but need to consider additional asset classes
 - FDIC type component
 - Emerging Markets
 - Consider income replacement tool to avoid participant outliving account assets
 - Plan to have recommendation 12-18 months

**Kentucky Public Pension Work Group
Defined Contribution Plan Subcommittee
Summary of Testimony 9/18/08:**

Meeting 3: Featured Presentations on the national perspective for public pension plans in dealing with defined contribution plan offerings.

Presenters: Keith Brainard, Research Director
National Association of State Retirement Administrators

Beth Almeida, Executive Director
National Institute on Retirement Security

William Fornia, FSA, Consulting Actuary and Co-Author
“A Better Bang for the Buck: The Economic Efficiencies of Defined
Benefit Pension Plans.”

Bottom Line Up Front: There are a number of myths and misconceptions relating to defined benefit vs. defined contribution plans. Defined benefit plans have inherent features that provide members with income security, and employers with cost savings. Most states maintain a defined benefit plan as the primary retirement vehicle for their employees, and offer some kind of voluntary defined contribution account; including Kentucky.

Presentation: Keith Brainard representing the National Association of State Retirement Administrators (NASRA)

NASRA: NASRA is a non-profit association whose members are the directors and administrators of 82 statewide public retirement systems in the United States. Combined, these systems hold assets of more than \$2 trillion in trust to fund pension and other benefits for most of the nation’s 22 million working and retired employees of state and local government.

Keith Brainard: Is research director for the NASRA, Mr. Brainard collects prepares and distributes to NASRA members news, studies and reports pertinent to public retirement system administration and policy. Mr. Brainard has testified on public pension issues before Congress and state legislative committees, and he speaks regularly before public pension boards of trustees and other groups. He is co-author of the *Governmental Plans Answers Book, Second Edition*; author of the NASRA white paper, “*Myths and Misconceptions of Defined Benefit and Defined Contribution Plans*,” (see appended) and co-author of a 2004 Pension Research Council working paper, “*Profitable Prudence: The Case for Public Defined Benefit Plans*.” Keith also maintains the Public Fund Survey, an online compendium of public pension data sponsored jointly by NASRA and the National Council on Teacher Retirement. Mr. Brainard previously served as manager of budget and planning for the Arizona State Retirement System and he provided fiscal research and analysis for the Texas and Arizona legislatures. He has a master’s degree from the University of Texas-Austin, LBJ School of Public Affairs.

Key Subject Areas:

- Overall use of DB and DC plans among state and local government and the experience plan sponsors have had with DC plans
- Myths and misconceptions of DB and DC plans
- NASRA position on DB and DC plans

Overall use of DB and DC plans among state and local government:

- According to the US Bureau of Labor Statistics, 88 percent of full-time employees of state and local government have access to a traditional pension plan, or defined benefit (DB) plan, as their primary retirement benefit. Most public workers with access only to a defined contribution (DC) plan are employed by local government.
- On a statewide basis, two states provide only a DC plan to broad worker groups: Alaska and Michigan.
 - Since July 1, 2006, all new hires in Alaska, including public school teachers, state workers, and employees of political subdivisions that participate in the AK PERS, may participate only in a DC plan administered by the PERS.
 - Since March 1, 1997, all newly-hired Michigan state employees have had access only to a DC plan.
- Since 2000, Florida, South Carolina, Ohio, Montana, and Colorado have established optional DC plans for broad employee groups as the primary retirement benefit.
- In each of these states, the percentage of those electing to switch from the DB plan to the new DC option has been relatively small (~ 5%). However, in Florida, South Carolina, and Colorado, the percentage of new hires electing to participate in the DC plan has been higher (15-20%).
- Ohio offers new hires participating in the PERS and TRS a choice between a DB plan, a DC plan, or a hybrid. From 1/1/03 to 3/1/06, a total of about two percent of new hires elected either the DC plan or the hybrid.
- According to the Government Accountability Office (GAO), approximately 22 percent of state and local government workers participate in an optional DC plan sponsored by their employer.
 - The participation rate of optional supplementary DC plans is significantly higher in cases where the employer provides a match to employee contributions.
 - Anecdotal evidence suggests that participation rates are significantly higher in optional supplementary DC plans, such as in Texas and Virginia, in which an automatic enrollment feature is in place for new hires.

- Several states, including Indiana, Ohio, Washington, Oregon, and Georgia, have established hybrid retirement plans made up of a DB plan and mandatory participation in a DC plan.
 - Indiana has maintained its hybrid structure for substantially all public employees in the state for decades.
 - Contributions to the DC component in the Oregon PERS hybrid plan are invested solely in a pooled fund that is invested in the same manner as the big DB plan fund. This strategy reduced administrative costs, reduces investment risk, and provides exposure to asset classes, such as private equity and real estate, that participants may otherwise not be available to individual account holders.
 - Participants in the Washington hybrid plan may direct their DC plan contributions to one of a several options, including a fund that mirrors the DB plan fund.
 - Ohio and Indiana maintain mutual fund-like investment vehicles for DC (and, in the case of Ohio, hybrid also) plan participants. These vehicles differ from typical DC plans in that values are not updated daily and participants' ability to transfer assets and contributions among fund options is limited.

Plan experience for defined contribution models:

- The experience of public plan sponsors with DC plans varies widely and defies brief characterization. Also, fully and accurately assessing the experience of a switch from a DB to a DC plan requires decades of experience, which is not yet available.
- Some observations of the state and local government experience with DC plans:
 - Of the five percent or so of Michigan state employees who elected to switch to the DC plan in 1996-97, some have continually and unsuccessfully sought legislation permitting them to return to the DB plan.
 - The employer actuarial required contribution to the closed Michigan SERS DB plan has increased from 5.6 percent of payroll (\$126.4 million) in FY 98 to 17.6 percent (\$316.3 million) in FY 07, and the plan's funding status has declined from 108.8 percent in FY 98 to 85.1 percent in FY 06. This decline is due to the employer's failure to pay the full required contribution and to investment returns below the assumed rate.
 - In Alaska, a memo prepared by the commissioner of the state department that oversees retirement systems, dated March 17, 2008, stated that with respect to the impact of switching to a DC plan on employers' ability to recruit new employees, "[i]t is simply too soon to tell." The memo also indicated that employer contributions are projected to rise "dramatically."
 - The actuarial required contribution to Alaska PERS increased FY 05 to FY 07 from 10.72 percent to 13.72 percent.
 - Research shows that most workers, particularly new hires, pay little or no attention to their retirement benefit, and little desire exists among workers for employers to switch to a DC plan in lieu of a DB plan. The vast majority of

participants, who have a choice of retirement plans, do not actively make an election, but rather, default into the plan established as the default plan.

- Nebraska and West Virginia in recent years have elected to switch broad worker groups from DC to DB plans.
 - A 2002 benefits adequacy study of state and county workers in Nebraska found that participants were retiring with inadequate assets on both an absolute basis and relative to their peers in surrounding states. This study was the impetus for legislation to switch new hires to a hybrid, cash balance plan.
 - In 2005, the West Virginia Legislature reopened the DB plan for public school teachers. This plan had been closed to new hires since 1991. The WV legislature found that the DC plan was not reducing employer costs and in response to requests from participants, who contended that the plan was not providing an adequate level of retirement income.

Myths and misconceptions of DB and DC plans:

- **A DB plan is more expensive than a DC plan.**

Figure 4: The universal law of retirement plan finance:

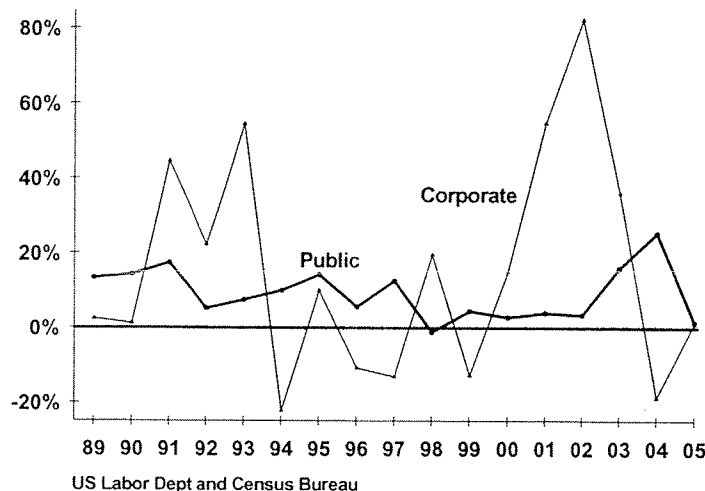
$$C + I = B + E$$

$$\text{Contributions} + \text{Investment Earnings} = \text{Benefits} + \text{Expenses}$$

- This law applies to defined benefit, defined contribution, and hybrid plans.
 - A DB plan is not necessarily more or less expensive than a DC plan, but different plan types will distribute benefits differently.
 - A retirement plan should be designed to meet stakeholder objectives. Typical stakeholders in a public pension plan include employers, taxpayers, participants, and bondholders, each of which has a distinct set of objectives.
- **DB plans outside the public sector have declined in use due to factors that have little or nothing to do with the public sector**
 - DB plans have declined in use chiefly as a result of the effects of ERISA, the body of laws that govern private sector pensions. Primary causes of the decline of DB plans outside the public sector include:
 - Cost volatility and uncertainty
 - High cost
 - Foreign competition

- The chart below plots the annual change over the prior year in total pension costs for public and corporate pension plans. As the chart shows, public pension costs are more stable and predictable than corporate plans. This is due chiefly to differences in the way required contributions are calculated.

Figure 5: Swings in pension costs overtime:



Pensions sponsored by state and local government are not subject to federal regulations that account for much of this volatility, nor are public pension plan sponsors subject to foreign competition.

- Mr. Brainard added that there appears to be a leveling off of the exodus from defined benefit plans into defined contribution plans among large employers.
- Roughly half of the Fortune 500 companies have a defined benefit plan. Defined benefit plans do lend themselves to economies of scale, and so larger organizations are more apt to participate in defined benefit plans.
- Private sector numbers for employers offering defined contribution plans are dominated by small employers, i.e. those with 250 or fewer employees.
- These statements are corroborated by a WATSON AND WYATT STUDY which is appended.
- **Closing an existing DB plan to new members does not reduce that plan's unfunded liabilities or cost.**
 - In fact, closing a DB plan usually will increase costs, at least in the near term, resulting from a diminishing payroll base and the loss of new participants available to help fund the cost of the unfunded liability.

- Mr. Brainard added that in 2004, Governor Schwarzenegger in California proposed closing off all public pension plans in the state as a cost saving measure. Two separate actuarial analyses, one for CALPERs and another for LA County, confirmed that any savings the state would realize by closing off their defined benefit plan would take at least 10 years to materialize.
 - Meanwhile the state's annually required contribution (ARC) as a percentage of payrolls would increase dramatically.
- California's experience has been borne out by Alaska and Michigan. When their respective defined benefit plans were closed ARC payments spiked dramatically.
- By closing off a plan you are essentially "starving" it of the contributions from younger workers whose contributions are used to pay down the unfunded liability.
- Meanwhile the unfunded liabilities continue to grow, and are paid for with an increasing contribution from employers, and ultimately the state.
- **Public pensions have developed a wide range of portability features.**
 - Such features include opportunities to purchase or transfer service credit, shorter vesting periods and provisions that permit participants to qualify for a benefit without spending a significant portion of their career with the plan sponsor.
 - This helps to illustrate the point that a plan should be designed with the ends in mind based on stakeholder objectives.
- **Consideration of plan costs should distinguish between pension and retiree health care costs.**
 - These are fundamentally different benefits types that should be considered and evaluated separately.
- **Although some DC plan participants will outperform the market, most will not.**
 - Few professional investors outperform broad market indices, and even fewer amateurs do. Studies consistently show that DB plan investment returns outperform those of DC plans.
 - Pooling assets promotes higher investment returns through lower costs and professional management, and enables participants to share equally in those returns. Asset pooling can reduce or eliminate certain risks, i.e., pooling reduces longevity risk, which is the risk that a participant will outlive her assets. Pooling also reduces investment risk, i.e., the risk that participants will underperform market indices.

NASRA's position on retirement plan type:

- *“...the National Association of State Retirement Administrators supports the prevailing system of retirement benefits in the public sector, namely, a defined benefit program to provide a guaranteed benefit and a voluntary defined contribution plan to serve as a means for employees to supplement their retirement savings.”*
- Both the Kentucky Teacher's Retirement System and the Kentucky Retirement Systems are members and active participants of NASRA, as are their respective executive directors.

Presentation: “*A Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Pension Plans*,” Beth Almeida, National Institute on Retirement Security; William Forna, FSA, Consulting Actuary and Senior Vice President AON Consulting.

The National Institute on Retirement Security (NIRS): NIRS is a non profit organization established to contribute to informed policymaking by fostering a deep understanding of the value of retirement security to employees, employers, and the economy through national research and education programs. NIRS seeks to encourage the development of public policies that enhance retirement security in America.

Beth Almeida: Is the Executive Director of NIRS. Before joining NIRS, she served as assistant director for strategic resources and as senior economist with the International Association of Machinists and Aerospace Workers (IAM) where she was instrumental in transitioning some 40,000 airline employees out of terminating or freezing pensions into the IAM’s multi-employer defined benefit pension plan. Earlier in her career, Ms. Almeida led research initiatives at academic centers in Germany, France, and her home state of Massachusetts. She has authored numerous economic and pension publications and is a frequent speaker at academic and industry conferences, both in the US and abroad. Beth earned a bachelor’s degree in international business from Lehigh University and a master’s degree in economics from the University of Massachusetts Amherst.

William B. (Flick) Forna: Is Senior Vice President, human resource consultant and actuary for Aon Consulting, specializing in public sector retirement plans. He has 29 years of actuarial and consulting experience, primarily in the areas of retiree pension and healthcare benefits. Mr. Forna earned a bachelor’s degree in mathematics at Whitman College. He is a Fellow of the Society of Actuaries (FSA), Enrolled Actuary, Member of the American Academy of Actuaries, and a Fellow of the Conference of Consulting Actuaries. He currently serves on the American Academy of Actuaries Public Pensions Subcommittee, the Faculty of the Society of Actuaries Fellowship Admissions Course, and the Conference of Consulting Actuaries Committee on Professionalism.

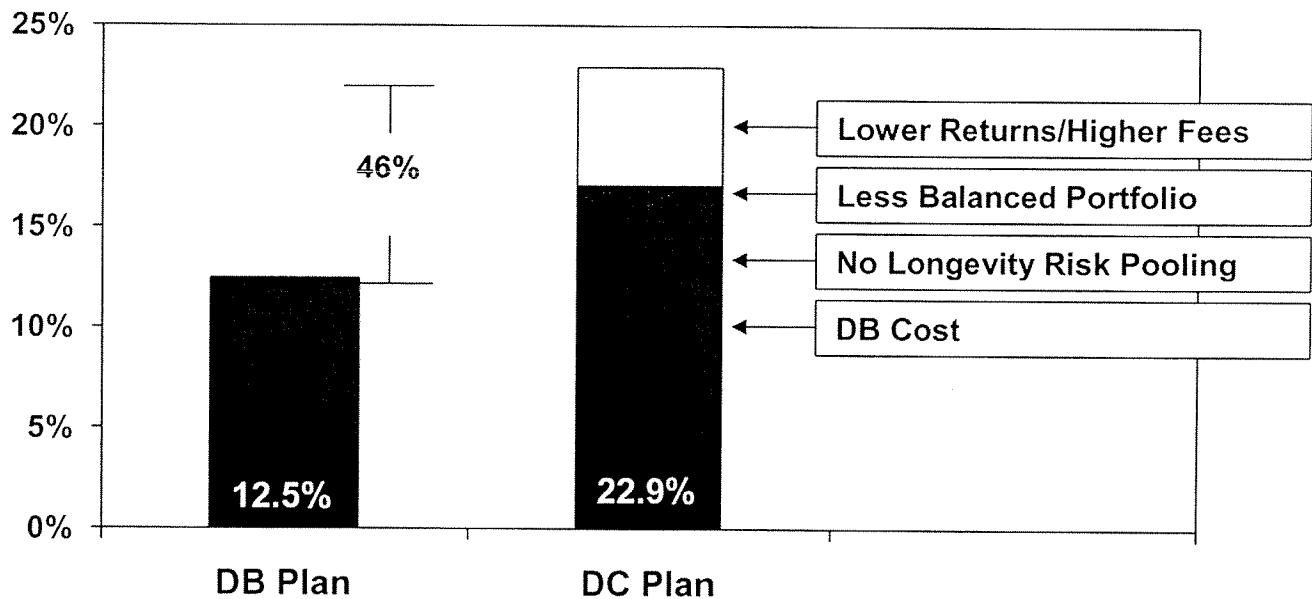
Note: Mr. Forna’s firm, Aon Consulting, is an investment consultant for Kentucky’s Deferred Compensation Authority, the state’s defined contribution offerings. He testified to the efficacy of defined benefit plans.

Key Subject Areas:

- A distinction must be made between benefit cost (the generosity of benefits) and plan cost (economic efficiencies in providing the benefits themselves).
- Benefit generosity largely drives retirement plan costs. As common sense would indicate less generous benefits will ultimately cost less.
- The values of traditional defined benefit plans to employees are generally recognized: they provide a secure, predictable retirement income that cannot be outlived.
- *Analysis shows that the cost to deliver the same level of retirement income to a group of employees is 46% lower in a defined benefit plan than it is in a defined contribution plan.*
 - Defined benefit plans better manage longevity risk, or the chance of running out of money in retirement, this saves the plan 15% of costs.

- Because defined benefit plans, unlike the individuals in them, do not age, they are able to take advantage of the enhanced investment returns that come from a balanced portfolio throughout an individual's lifetime, producing 5% of cost savings.
- Professional investment management in defined benefit plans helps to achieve greater investment returns on average as compared to defined contribution plans that are made up of individual accounts. *A defined benefit retirement system that can achieve higher investment returns can deliver any given level of benefit at a lower cost, providing plans with cost savings of 26%.*

Figure 6: DB Plan Can Deliver Same Benefit at About Half the Employer Cost of DC Plan
Cost of DB and DC Plan as % of Payroll



Study Methodology:

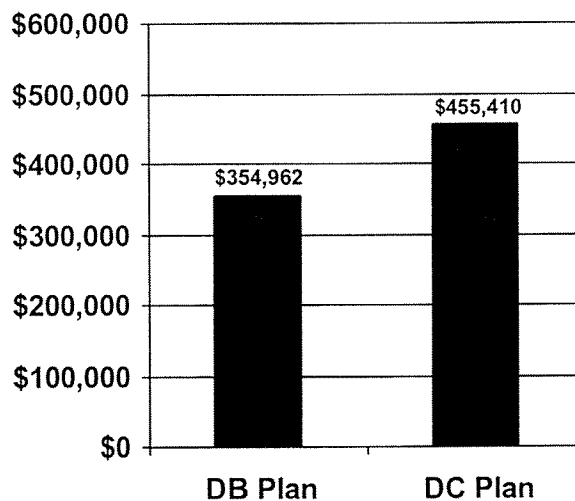
- The central claim that was examined was that defined contribution plans save money for the employer.
 - The study modeled a population of 1,000 female teachers who work for 30 years - their final salary is \$50,000
 - The study defined a “target” retirement benefit - about \$2,200/month – at age 62, which is adjusted for inflation
 - The costs to fund this benefit were calculated through a DB plan structure, then through a DC plan structure
 - Consider 1,000 retiring schoolteachers
 - Retiring at age 62
 - This illustration assumes they are female
 - Some will live to over 100
 - Some will die at 65

- On average they will live to 85

Study Findings:

- Defined benefit plans have an intrinsic value through longevity risk pooling
 - Because they cover large numbers of retirees, defined benefit plans can pay out over the *average* life expectancy, not *maximum* life expectancy
 - An individual under a defined contribution plan will want to avoid the risk of running out of money if they live a long life
 - Because individuals must plan for a maximum life expectancy, much more money must be accumulated in a defined contribution plan, compared to a defined benefit plan
 - In defined contribution plans, individuals must self-insure longevity risks (“over-save”) thus, the defined contribution plan needs to set aside at least \$455,000 for each retiree at age 62
 - In order to fund this amount, contributions in a defined contribution plan must be 16.0% of payroll, vs. 12.0% in a defined benefit plan.

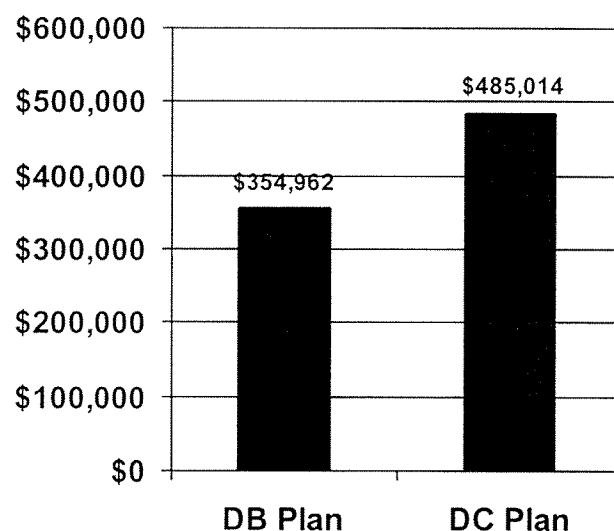
Figure 7: Lack of longevity risk pooling in defined contribution plans drives up costs



- In DB plans, a common trust is established and assets are invested by professionals
- In DC plans, individuals typically direct their own investments
 - Age-related move to “safer,” but lower-yielding investments as individuals age
 - Individuals generally achieve lower returns as compared with professionals

- The second key strength found in defined benefit plans is more effective portfolio diversification.
 - DB plans can maintain a well diversified portfolio over time – unlike individuals, DB plans do not age
 - To protect against market shocks, individuals in DC plans are advised to shift toward more conservative investments as they age, sacrificing some expected return
 - Lower returns mean more money must be contributed to deliver the same level of benefits
 - The DC plan now must have at least \$485,000 set aside for each retiree at age 62, in order to maintain a level income replacement
 - In order to fund this amount, contributions must be 17.0% of payroll, vs. 12.0% in a defined benefit plan.

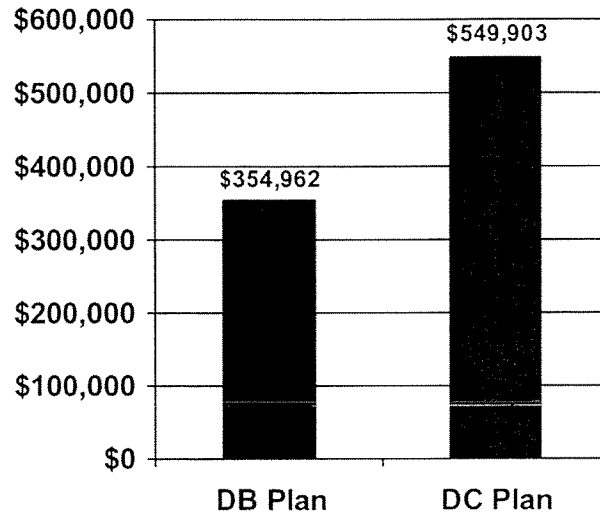
Figure 8: Age-driven shift to a less diversified portfolio in dc plans drives up cost



- Strength of DB Pension Plans Pooled, Professionally-Managed Assets
 - Assets in DB plans are professionally managed. Despite their best efforts, individuals tend to under-perform when it comes to investing in DC plans
 - Pooled investments in DB plans can lower expenses
 - Large group pricing negotiation
 - Avoid expenses of individual recordkeeping, investment education, investment transactions
 - Studies generally have shown that DB plan returns outperform DC plans by at least 1% annually
 - The DC plan now must have almost \$550,000 set aside for each retiree at age 62

- In order to fund this amount, contributions must be 22.9% of payroll, vs. 12.0% in a defined benefit plan.

Figure 9: Lower returns/higher fees in defined contribution plans drive up cost



Breakdown of defined benefit vs. defined contribution cost savings:

- All-in costs savings in defined benefit plans = 46%
 - Longevity risk pooling savings = 15%
 - Maintenance of portfolio diversification saves = 5%
 - Superior investment returns save = 26%
- *Because of these efficiencies, the defined benefit plan can provide the same benefit at about half the cost of the defined contribution plan.*

**Kentucky Public Pension Work Group
Defined Contribution Plan Subcommittee
Summary of Testimony 9/29/08:**

Meeting 4: Presentation of the states' perspective: West Virginia's transition to and from a defined contribution type plan.

Presenters: Anne Lambright, Executive Director
West Virginia Consolidated Public Retirement Systems

Debra Elmore, 3rd Grade Teacher Anstead Elementary
Former member of the Teacher's Defined Contribution Plan

Bottom Line Up Front: West Virginia offers valuable lessons to policy makers on what not to do in implementing a defined contribution plan. West Virginia's Teachers Retirement System was severely underfunded; a defined contribution approach was suggested as a cost saving measure. No cost savings were realized; instead liabilities increased. In 2005, 80% of teachers elected to move back to the defined benefit plan.

Background:

- Ms. Lambright testified that the West Virginia Consolidated Public Retirement Board came into existence in 1991.
- In 1991 it combined all existing public retirement systems into one administrative hub. The West Virginia Teachers' Retirement system was established in 1941 as a defined contribution plan. The teachers' system went through a number of changes and in the 1960s became a defined benefit plan. In 1991, the same year the West Virginia Consolidated Public Retirement System was created; it was recommended by the state's actuary that the best way to deal with a severely underfunded teacher's system was to move toward a defined contribution plan.
- The West Virginia Teachers' Retirement System is comprised of all teachers, university employees and school service employees (i.e. bus drivers and cafeteria workers). The only education employees not included in the system are local school board members.

Features of West Virginia's teachers' retirement plans:

- **In General:** Teachers do receive Social Security and there is not a guaranteed health benefit.
- Teachers do have access to purchase health care coverage with the state insurance system. Due to rising premiums experience indicates that many eligible retirees are waiting until they are 65 in order to take advantage of Medicare.
- **West Virginia's DB plan:** uses a 2% multiplier (accrual factor) for calculating final benefits

- Vesting in the DB plan was determined by using a “rule of 85,” wherein age plus years of service must equal 85 years.
- If a teacher opted out before vesting in the retirement system, their contributions remained within the DB plan.
- **West Virginia’s DC plan:** Vesting in the DC plan was for 12 years and was graduated to favor longer careers. The TDC had no reciprocity agreements with other systems in West Virginia, there was no account rollover. Although the TDC was not portable within state government, it could be taken to the private sector.

Comments on funding in West Virginia:

- One of the major features that led to the creation of the TDC was severe underfunding in the West Virginia TRS DB plan.
- West Virginia employs a tiered employer payout system, where the state pays employer contributions for state employees, and counties pay employer contributions for their employees and are then reimbursed by the state. Prior to 1991 the state did not regularly contribute to the system or make reimbursements to the counties.
- In 1991 with the creation of the TDC the TRS system was essentially closed. New hires automatically enrolled in the defined contribution plan. Concurrently, the legislature artificially lowered their ARC payments to the TRS system; as a result the West Virginia unfunded liability continued to grow.
- In 2005, significant pension reform was undertaken. At that time all state plans were examined and a firm funding schedule was put in place. Additionally, a major influx of money from tobacco securities litigation was used to pay down the unfunded liability of the retirement systems. Actuarial analysis concludes that if the schedule is adhered to the systems will be fully funded by 2034.

The creation of the Teachers’ Defined Contribution Plan:

- Implementation took approximately one year, where upon all new hires into the Teachers’ system were required to participate in the defined contribution plan (TDC). The benefit was that teachers in the defined contribution system were given a lower contribution rate 4.5%/per pay period vs. the defined benefit teachers which paid 6%.
- A number of conservative options were developed for new hires which began to participate in the new defined contribution plan including:
 - A general money market account;
 - fixed guaranteed annuity;
 - Gross stock fund;
 - And a bond fund

- Vesting period was for 5 years in the defined benefit plan; a window was established for a period before and a period after where employees could elect the system where they wanted to participate.
- In 2003-4 the West Virginia investment management boards warned that unlike the other public employee plans the individual defined contribution accounts for teachers were not keeping pace in investments.
- On the average defined benefit plans run approximately 1% higher in investment returns than defined contribution plans. In West Virginia's experience, the professionally managed accounts were running ahead of the individual dc accounts by between 5-8%
- Teachers, unions, and legislators were all concerned about the state of the teachers' defined contribution system. Legislation was passed in 2005 that required everyone in the TDC to move over to the DB plan if a certain number of individuals elected to make the switch.
- A lawsuit was started to stop the process, and the courts found it was not appropriate to force all members to revert to a DB plan. Today the situation is that a number of people in the TDC are ready but cannot afford to retire.

Plan account statistics:

- The vast majority of TDC members were financially unable to retire if the defined contribution plan was their primary retirement vehicle.
 - For those teachers age 60 and over it was estimated that a minimum balance of \$350,000 was needed to retire.
 - However, of those eligible to retire 97.95% had balances under \$100,000
 - 83.51% of those ages 60 and over, who were eligible to retire, had a total balance of \$23,193; making it impossible for them to retire.
 - For all TDC members only .04% had an average balance of \$175,000
 - 1.69% had a balance of \$110, 000 or less
 - 21% had a balance of \$72,000 or less
 - 76% had a balance of \$23,000 or less
 - The average TDC balance was \$33,944

Merger between TDC and TRS:

- Due to the legal ruling from the 2005 proposed merger, in January of 2008 the legislature and the governor met to create a new process. The new proposal established a voting process, wherein members would elect which system they would want to participate in

going forward. If a certain threshold (~65%) was met then the TDC would be closed to new hires.

- The key distinction from the earlier failed plan was that members would no longer be mandatorily assigned to the defined benefit system if the threshold was met or surpassed. Also, if members elected to change to the defined benefit system they would have an additional 1.5% contribution each year, plus an additional 4% interest to make the purchase of service credit at full actuarial value.
- The new agreement became effective by the end of March. Members were required to participate in informational sessions and were provided individual estimates for each person and what their retirement benefit would look like under both plans. The choice was a one time irrevocable decision. The transition process ended by May; results were certified by June 3rd. At the end of the period almost 80% had elected to switch over to the defined benefit system. In the process of dividing the existing assets, there have been lawsuits but none to date have stopped the process.
- The original timeline established for the transfer was found to be too stringent, in response the legislature extended the final date of transfer by another month; additionally the legislature authorized the use of individual 5 year loans to help teachers make their service purchases at true actuarial cost. It is estimated that 1,500 people are eligible to retire, prior to retirement actuarial costs must be paid. Most teachers will pay through money borrowed from the individual loans; they cash out their 403b, or pay through cash and savings.
- It is important to note that the actual experience of the transfer illustrated that the actuarial assumptions regarding who would transfer were incorrect. The actuaries anticipated that young members would want to maintain the portability features of the DC plan, and older members would want the security of the DB plan.

Experiential Statistics of the Transfer:

- 50% of those members age 70+ transferred
- 69% of those members age 65-69 transferred
- 83% of those members age 55-59 transferred
- 81% of those members age 50-54 transferred
- It was expected that 25-30% of those under 30 would transfer
- 76% of those members age 30 and under transferred
- Ultimately the actual statistics of the transfer benefitted the Teachers' DB system, because younger workers will help to cover the costs of the transfer by providing continued contributions throughout their careers which ultimately help pay down the cost of West Virginia's liabilities.

- Despite the size of the transfer from TDC the plan still maintains approximately 7,000 active remaining accounts. However, the TDC plan has been closed to new hires since 2005.
- Ms. Lambright stated that if one were to take an objective look at the statistics from West Virginia it would have ultimately been better to stay with the defined benefit plan, but qualified her statement that any permanent damage to retirees has been rectified by window that has been implemented.

Retrospective look at major factors leading to the collapse of the TDC plan:

- Plan members, who are not investment professionals, chose investment allocations that were too conservative.
- The state did not substantially invest in participant education, although the situation is improving, the original switch in 1991 did not include a substantial outreach effort.
- Cash outs and loans from retirement savings accounts were too easily accessed, as a result some participants were able to cash out or borrow against their savings with impunity.
- Ms. Lambright stated that in retrospect investments, employer, and employee contributions were all probably insufficient to provide adequate retirement for individual members.

Presentation by Ms. Debbie Elmore, former member of TDC:

- Ms. Elmore began teaching in Fayette Co. WV in 1990.
- In 1991 the TDC was created, and five defined contribution options were made available to members. Each of the options was managed by private firms. Representatives of those firms were sent to actively recruit members for the TDC plan.
- One of the firms, Valic (a subsidiary of AIG), came into individual schools and workplaces to present the case for fixed rate annuity plans. The trips were part of a statewide marketing system that emphasized aggressive workplace promotion. Valic in particular sent representatives to the schools or bus garages.
- Valic employed other retired teachers, superintendents, and administrators from county board offices in their statewide marketing plan.
- Ms. Elmore and others feared that TRS was so severely underfunded that it would be bankrupt in less than 5 years; they would have no real choice but to go into the TDC.
- Approximately one and a half years later she moved from the underfunded TRS to the TDC plan.
- When she signed up to participate in the fixed annuity the forms were pre-drawn with allocations in safe accounts, it was up to the individual members to actively opt into more risky accounts.
- Ms. Elmore said that after the initial recruitment phase, for the 15 years participated in TDC she only had two conversations with anyone from the TDC or Valic.
- During the 2005 vote, she voted to go back to the TRS system. Many co-workers insisted that she needed to stay within the TDC. However, she observed that everyone who said that she needed to stay had a spouse with a retirement plan or another pension from somewhere else.
- Ms. Elmore said that she had 90,000k saved in her TDC account. To her it always seemed like a lot of money until she started breaking down her expenses as she came closer to retirement.
- After speaking to several investment professions she found out that she would really need \$470,000 to retire.
- Ms. Elmore broke down her savings to determine how long he savings would last. Deducting \$500/month out of her account she determined that her retirement account would be completely depleted after 15 years.
- When asked what kind of advise Ms. Elmore would have for someone considering a DC retirement account, she advised, "Really sit down with someone who understands

retirement savings and go over everything in the account and understand you really understand what is going on.” She added that would really be best to, “steer clear.”

- Ms. Lambright stated that the West Virginia Consolidated Retirement Systems are being sued in civil court by several teachers, and the state auditor is launching an investigation into the business practices of AIG, and Valic, during the period in question.

**Kentucky Public Pension Work Group
Defined Contribution Plan Subcommittee
Summary of Testimony 9/30/08:**

Meeting 5: Continuation of the states' perspective: Representatives from Florida will be brought in to discuss the states Defined Contribution model.

Presenters: Jim Francis, Former Senior Investment Policy Officer & Economist
Florida State Board of Administration

Dr. Jay Rayburn, Florida State University
Principle Consultant for Implementing Florida's Hybrid Plan
Employee Education Program

Bottom Line Up Front: Florida implemented a defined contribution plan for employees to increase individual choice rather than to cut cost. The Florida retirement systems are the best funded in the country, this was achieved through a serious legislative commitment toward continued funding. Florida implemented a DC plan only after they were fully funded. Florida also has a high participation rate in their DC plans, which was achieved through a significant education and outreach program.

Background:

- The Florida Retirement System was established in 1970, it was established as a traditional DB plan, and as a consolidation of four substantial and underfunded plans throughout the state
- Today the system covers all state employees, county employees, all school teachers, community colleges, universities, and some municipalities. It has 1.1 million working and retired members, making it the fourth largest pension plan in the country.
- The key features of the Florida Retirement System is that it has been non-contributory since 1975, meaning that it is totally paid for from employer contributions.
- There are seven different benefit structures within the system for employees. The regular class represents approximately 86%; the special risk class 11% that is essentially police and fire personnel; and the remaining 3% elected officials, senior management, and senior judges.
- Within the regular class normal retirement is based upon 62 years of age or 30 years of service with final compensation based upon the highest 5 years of service.
- For the special risk class retirement eligibility is 55 yrs or 25 years service with final compensation based upon the highest 3 years of service
- For special risk employees there is an extra cost charged to employers if the member elects the DC plan because additional death and disability coverage must be purchased.

- 10 yr vesting system up until 1992 when the DC system was implemented, and now has a 6 yr vesting system for the DB program
- When the system was founded in 1970 it was severely underfunded, progress was very slow, and fifteen years later in 1985 the system was approximately 54.3% funded.
- In the early 1990s the plan made substantial progress toward funding, and became fully funded by 1998. The system peaked at 118% funded in 2000. Since then the surplus is being utilized, and during the most recent actuarial valuation in 2007 the system is now 107% funded.

The surplus is a function of 3 factors:

- First, is the legislative will to make the full ARC payments required by the systems. Mr. Francis added that there is simply no substitute and it is essential to keeping a retirement plan in working order. During the 1990s the normal cost was estimated to be approximately 12% and the legislature routinely paid in 17.5% or greater.
- Second, the system made an active decision to have an aggressive asset allocation, particularly in equities during a very opportune time. The system was able to take full advantage of the bull market during this time.
- Third, the legislature showed substantial restraint in additional benefit enhancements. Even when markets were strong, and a number of systems had increased benefits, Florida legislators maintained their funding schedule without benefit enrichments.
- It is important to note that in Florida the DC plan was implemented after the plan was fully funded...the transition was not a step to get to a fully funded status.

In terms of DC plans within the Florida system there are actually four options:

- First was enacted in 1984 for the state university system, which is the most substantial in size.
- In 1987 a similar plan was enacted for senior management
- In 1995 a similar plan for community colleges
- In 2000 the largest DC plan which is called the "Florida Investment Plan" was enacted, it was the result of two years worth of legislative research and development, and was first implemented in 2002.
- It is an optional plan for everyone, plus there is a hybrid, for both the DB and DC plan

What made the Florida DC plan successful?

- Most important is the extensive research, planning and education effort that went into the design and implementation of the Florida Investment Plan (FIP).

Motivations for a DC plan in Florida:

- There are 6 motivations for Defined Contribution plans, all of which were heard in Florida at one time or another:
 - First, DC plans are more attractive to younger more mobile workers
 - Second, it was attractive in the then strong market environment of the 1990s
 - Third, it places investment risks on employees rather than employers
 - Fourth, is more philosophical, in that it affords employees a stronger degree of self determination
 - Fifth, setting aside investment risk, it was assumed that a DC plan would be a cost saver. *Mr. Francis stated that a DC plan is not inherently more cost effective than a DB plan.* Ultimately, retirements are about providing a certain level of income at retirement. If you start with a plan and you want to maintain 85% income replacement, which is a standard level of replacement, in an ideal situation where both the management costs and investment returns are held constant and there would be no difference between a DB and DC. However, those are weak assumptions because typically DC plans don't do as well and DC plans cost more. *What provides cost savings in a DC plan is plan design; savings are realized by setting contribution rates lower or forcing other design changes so that retirees have less of an income replacement at retirement. There is not an inherent cost savings to DC plans.*
 - Mr. Francis later clarified that it is cheaper to provide retirement for a full career employee in a DB plan; however, a DC plan is undeniably beneficial to those members who are in and out of the system, from a member perspective. Of course from the state perspective those that leave early pay into the fund if underfunded, but that was not the case in Florida. It is critical to the employee that they properly assess their time horizon of employment.
 - Mr. Francis went further to explain that he himself retired from the DB plan, because the expected benefit from DB out weighed benefit of DC plan after 20 years. Mr. Francis already had 28 years of service when the DC plan came out.
 - Sixth, DC plans serve the interests of the companies that service these plans.

There are reasons for caution for each of these motivations, which are:

- First, with the issue of portability, this is again a function of plan design. Portability can be brought into a DB plan. However, account portability is a particular function of DC plans.

- Second, the market argument is hardly a motivation for a DC plan. Markets go up and down regardless of plan type.
- Third, *DC plans do give self determination, but to what end? If plan members are unequipped to handle investment and retirement self determination you haven't really given them a benefit.*
- Fourth, Cost savings are tricky. Because ultimately depending upon where cost savings come from ultimately what that means is that you are giving your employees less of a retirement benefit. Mr. Francis explained that a number of years ago, media coverage focused on public sector retirements as unfair because DB plans guarantee a retirement, while private sector employees have DC 401(k) plans. *It is true that public sector employees are guaranteed a benefit, but it is only part of the equation in that typically wages in public sector jobs are lower than in the private sector. If there is a disadvantage in the labor markets because of lower wages, and you are creating another disadvantage through lowered retirement benefits...then you may be short sighted and ultimately regret that decision.*
- Finally, *while DC plans serve the interests of the companies that sponsor them, catering to special interest is hardly sound public policy.*

DB plans do have inherent benefits:

- To some degree depending on plan design these can be incorporated into DC plans as well, however one simply cannot be overcome, and that is economies of scale.
 - Economies of scale dictate that it costs very little in addition to manage \$100 million dollars than it does \$2 million dollars in assets. So the more assets you have to bear, the more leverage you have to negotiate a lower cost in managing those assets.
 - In DC plans the emphasis is to put out lots and lots of options, but with lower assets, the cost of providing and managing each additional option is higher.
- The second inherent benefit to DB plans is that typically they have professional investment expertise behind them. This can be included in DC plans. Mr. Francis noted that to his knowledge there has never been a more extensive or intensive effort at investment education in Florida for their DC plan, but it was expensive and it was still a hard sell.
- The third inherent benefit is that DB plans payout is in the form of a lifetime annuity, which offsets the risk of exhausting the retirement benefit that is possible in a DC plan. *It is true that an annuity can be put in as a component to a DC plan, but it is expensive. Typically very few people take advantage of an annuity in a DC plan, making it more costly. If the annuity is more costly, then fewer people want to take advantage of the option, it essentially becomes a "chicken and the egg" dilemma.*

- *Another advantage that DC plans simply cannot overcome is that in a DB plan there is a greater strength in the ability to collectively bear risk. A DB plan is essentially perpetuity, but as individuals in a DC plan we have to throttle back investments as we age.*

Florida's DC option:

- Ultimately in Florida, because of the two year implementation period and the outcome from plan design and execution the DC option had a fairly good outcome.
- *The DC option in Florida remained a choice; there was no forced implementation of the plan on existing or future hires.*
- There was a mandatory pre-election educational outreach program.
- Each employee also has a once in a lifetime election to switch between systems (actuarial costs included for service purchases in moving from a DC to a DB).
- On the cost side, Florida law required a separate vendor for record keeping, a separate vendor for education, and separate investment product vendors. Mr. Francis added that if you allow those lines to blur you are asking for trouble, when investment vendors are also doing education they are really doing marketing.
- Cost management was a key focus of the legislation itself. Mr. Francis explained that for each additional 1% of additional plan costs that are incurred individual account balances are 10% lower after twenty years and 15% lower after 30 years. Of the total account that you have saved for retirement, you can eliminate 15% of that amount to fees. *Explained another way, if you have a beginning salary of \$35,000 and a 10% contribution rate, your account balance would be \$100,000 dollars lower after 30 years because of fees.* Part of why costs are so important is that just like investment returns they compound overtime.
- The legislature determined that participants must receive a plan that is low cost, participants must receive education on financial planning, and economies must not be squandered on an excessive number of investment options, and no provider could function in a dual role (eg. education and investment, or record keeping and investment)

Florida's DC education effort:

- The education effort that preceded Florida's DC plan took two years to implement and cost \$22.7 million dollars.
- The education effort involved audience research; communications development; testing; information distribution; toll free telephone service; 3,000 on site employee visits; a Web developed retirement training package and advice.

- The legislature was willing to spend that much on education due to the extensive study that preceded the plan. In a 1996 survey by the Comptroller of the Currency in the Securities Exchange Commission found that fewer than 1 in 5 mutual fund investors could give any estimate of the expenses of their largest mutual fund. Fewer than 1 in 6 mutual fund investors understood that higher expenses netted them lower returns.
- A 1999 nationwide survey by John Hancock Financial Services found that less than ¼ of DC plan participants considered themselves to be knowledgeable about investments. Despite that less than half of them used the services of a financial advisor, even if one is available. 41% of DC plan participants think that stocks are found in a muni market account. 49% think a muni market account outperforms a bond fund over 10 years. 42% think that they can't lose money in a bond fund. 8% think that they can't lose money in the stock market. Most have no goal or strategy in balancing their portfolio.

After the education effort, and the plan was implemented what was the outcome?

- Most people that opted for the DC plan were younger
- By the time the plan was in place market conditions had changed
- 130-200,000 people were expected to transfer; in reality 24,000 people transferred. Today, 13.9% of the total Florida Retirement System population is in the DC plan and 8% of new hires choose DC.
- There were no costs savings for Florida in implementing a DC plan, the DC plan was not designed that way. Depending upon perspective an argument could be made either way, but for employers the DB plan has been slightly less expensive.
- As a result of education efforts and keeping fees low the DC returns for a five year period ending June 30, 2008 were 8.6% annualized while the average DC plan nationwide was 7.4%.

Dr. Jay Rayburn Florida State University: is a professor of communications and the head of the public relations program at Florida State University. He became involved with the Florida Retirement Systems when Mr. Francis approached him because of the newly implemented DC plan, and the need for a public education component that was required by legislation.

Mr. Francis had originally sought Dr. Rayburn's advice in selecting an advertising agency for the task, but Dr. Rayburn convinced Mr. Francis that what was needed was an extensive public relations campaign.

Educational features of the Florida DC plan:

- Dr. Rayburn explained that in his opinion, Florida really did it right when it comes to the education and outreach program that was put in place for the DC plan. The legislature made sure that the educational components were not only well designed, but they also

had an enduring commitment to fund the needs of the program so that retirees could make an informed decision.

- For example the legislature appropriated \$1 million in research just to roll out the education program. As stated earlier, Florida's DC plan took two years to implement and cost a total of \$22.7 million dollars.

Program segments:

- The first segment involved as significant amount of time finding the right public relations company to design the research and create a program so that public employees would understand the issue, as it is very complex.
- At the time there were 650,000 participants in system; 70,000 new hires. The Florida State Board of Administration wanted to understand what these people knew about retirement, and so studies were designed that used both qualitative and quantitative methods.
- During testing one of the assumptions made was that the education materials could be designed based on where employees worked (i.e. state agencies, county agencies, and schools). The study involved 5,000 telephone interviews with members and ultimately determined that the assumptions were incorrect, and needed to be segmented based not on employment type but financial sophistication.
- Testing revealed three levels of financial/retirement sophistication:
 - 1) Those who are classified as "don't know don't cares"
 - 2) Those who "could be interested" and have some financial acumen
 - 3) "Wall St. Wizards" with the highest levels of sophistication; mostly comprised of economists or accountants.
- Focus groups were then created based on the above sophistication personas. Researchers encouraged members to share their concerns regarding retirement so that the educational material could be directed toward each type of individual.
- The education effort utilized a number of outreach tools and programs, including: handouts, extensive telephone services, Web based services with sophisticated computer modeling and others.
- The key was to incorporate multi-phased research. The public relations campaign created the materials and spent months testing materials making sure that they accomplished their goals, including over 60 focus groups and extensive quantitative work.
- After the initial roll out, the focus shifted toward determining why active election for a particular plan type was low. In Florida, if a member did not make an active selection to participate in the DC plan they defaulted into the DB plan.

- Approximately 25% made an active decision for one plan or another. After testing it was revealed that a number of individuals had chosen not to elect any option out of fear of making a mistake. If you add in the notion that these people were making an active choice by not deciding, then approximately 40-50% of members made an active decision.
- Today the major challenge is to improve the number of people who default into the DB plan, by actively engaging them and providing them with sufficient resources in making that choice. Approximately 2/3 of members have now chosen retirement based upon an active choice.
- The education program also revealed that a number of employers also wished they understood the various retirement options a little better. As a result, a “how to” was developed so developed so that they could help guide employees through making an active choice, but not give them specific financial advise.
- Participation programs in financial literacy and money management programs are available to all members of the retirement systems, including those members in the DB plan. DB members can call in to the hotline or use the various materials. The legislature determined that it was beneficial to everyone to know how to model or invest for retirement.
- A number of seminars are also available to all employees, for example, there is one for new hires, one for members ready to retire, and one for members of both systems who want to know more about investing and financial planning.
- Dr. Rayburn summarized that in Florida, the legislature did an outstanding job in having the will to empower employees to make an active and informed decision and the legislature appropriated enough money to make sure that the educational components were done right.

**Kentucky Public Pension Work Group
Defined Contribution Plan Subcommittee
Summary of Testimony 10/17/08:**

Meeting 6: Presentation by the subcommittee's actuarial consultant; beginning of stakeholder testimony.

Presenters: Paul Cleary, Executive Director
Oregon Public Employees Retirement System

Patrick Welsh, Consulting Actuary

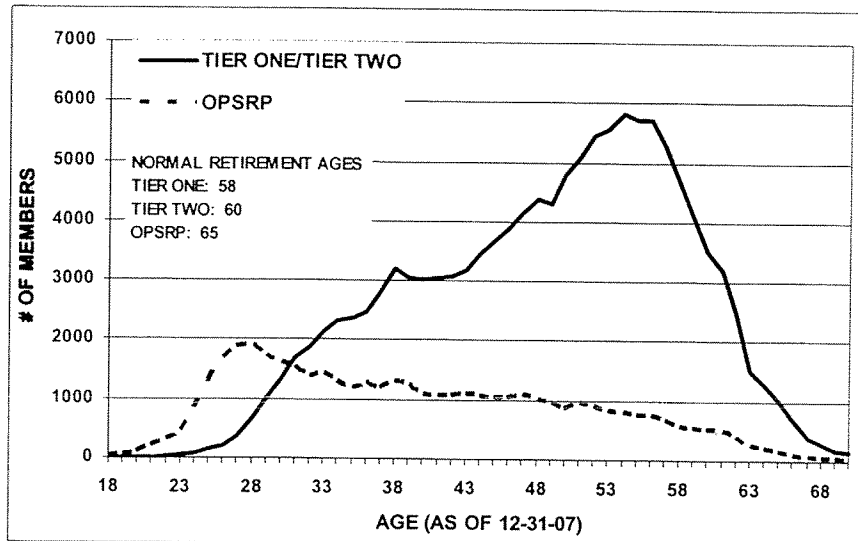
Bottom Line Up Front: Oregon is a system that has a combined DB DC system, employer contributions are contributed toward the member's DB plan and employee contributions are directed toward the DC account. Oregon was able to eliminate a \$16 billion UAL in three years by a combination of pension reform, top investment returns, and the issuance of a Pension Obligation Bond (POB), but not the inclusion of a DC plan.

Background:

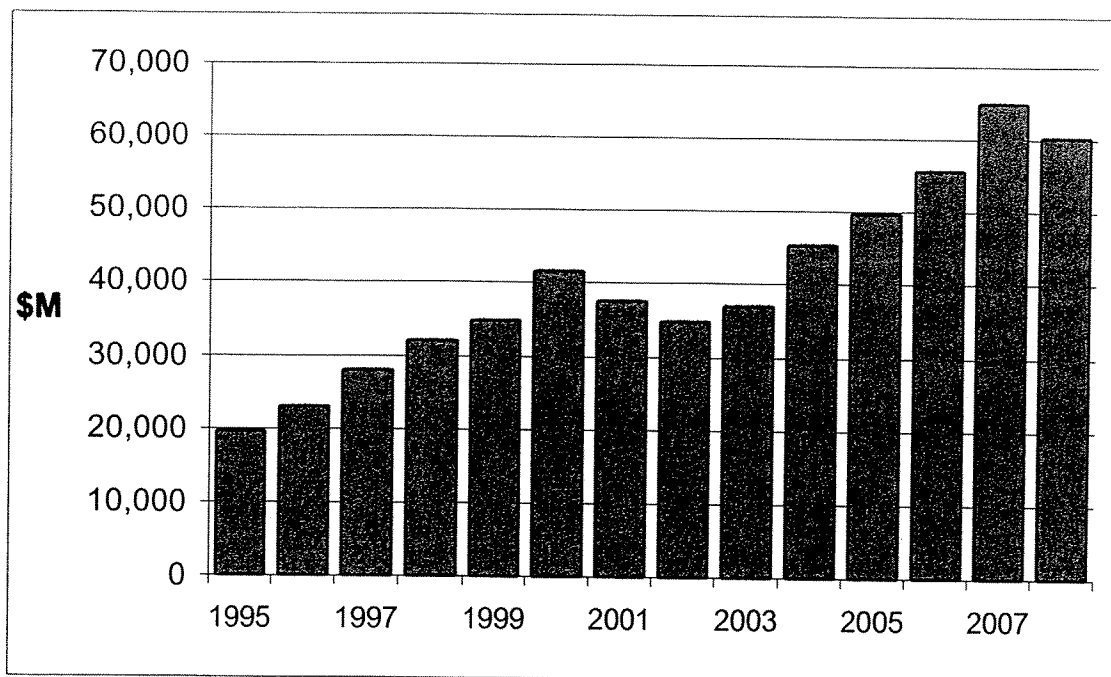
At the request of subcommittee members Mr. Robert Brown, Executive Director of the Kentucky Deferred Compensation Authority and Mr. Mike Burnside, Executive Director of the Kentucky Retirement Systems the subcommittee took additional testimony from Mr. Paul Cleary, the Executive Director of the Oregon Public Employees' Retirement System.

- The Oregon Public Employees' Retirement System was statutorily created in 1946
- PERS has 870 employers; 95 percent of Oregon's public employees – state, local government, and schools.
- The system has total assets of \$59 billion (as of August 31, 2008); one of nation's largest retirement funds
- Oregon has a bifurcated board; one is responsible for investments and another for plan governance.
 - Oregon Investment Council; top tier investment performance
 - Investments generated 85 percent of 2007 revenue
 - PERS Board: governance and policy oversight

- Oregon has 320,000 members and retirees: 167,000 active; 48,000 inactive; and 105,000 retirees
 - 55,000 eligible to retire by age or service



Net Plan Assets (Fiscal Year Ending June 30)



- Average annual benefit for FY 2007 retirees: \$27,000
- Average annual benefit for all living retirees: \$23,300

- \$2.4 billion paid annually to retirees living in Oregon; \$300 million in 49 other states and \$6 million in 47 other countries
- Investments generate over 80% of PERS annual revenue; due two major factors:
 - Assets have performed well in the markets
 - The state has provided regular funding

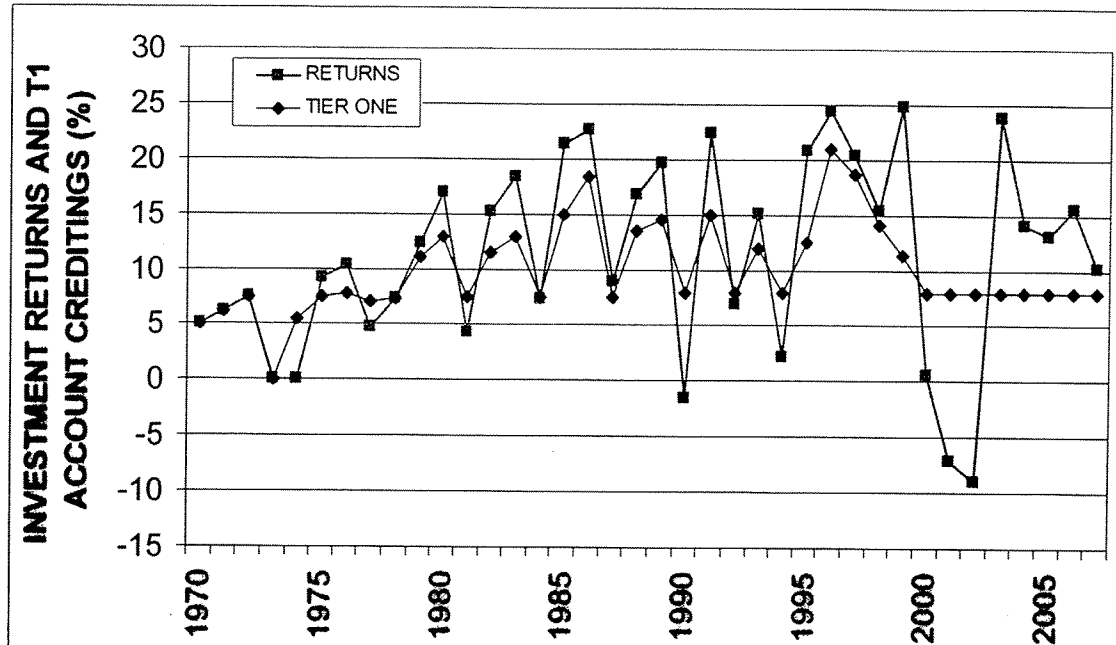
The PERS system before reform:

- Members get “best of three” benefit calculations: Full Formula, Formula Plus Annuity, and Money Match
- “Money Match” benefit doubles member accounts at retirement
- Members received high earnings in good years and guaranteed 8 percent earnings in bad years
- Actuarial factors not kept current
- \$17 billion unfunded actuarial liability (UAL) emerges
- Earnings crediting in good years doubles member accounts several times within a short time span

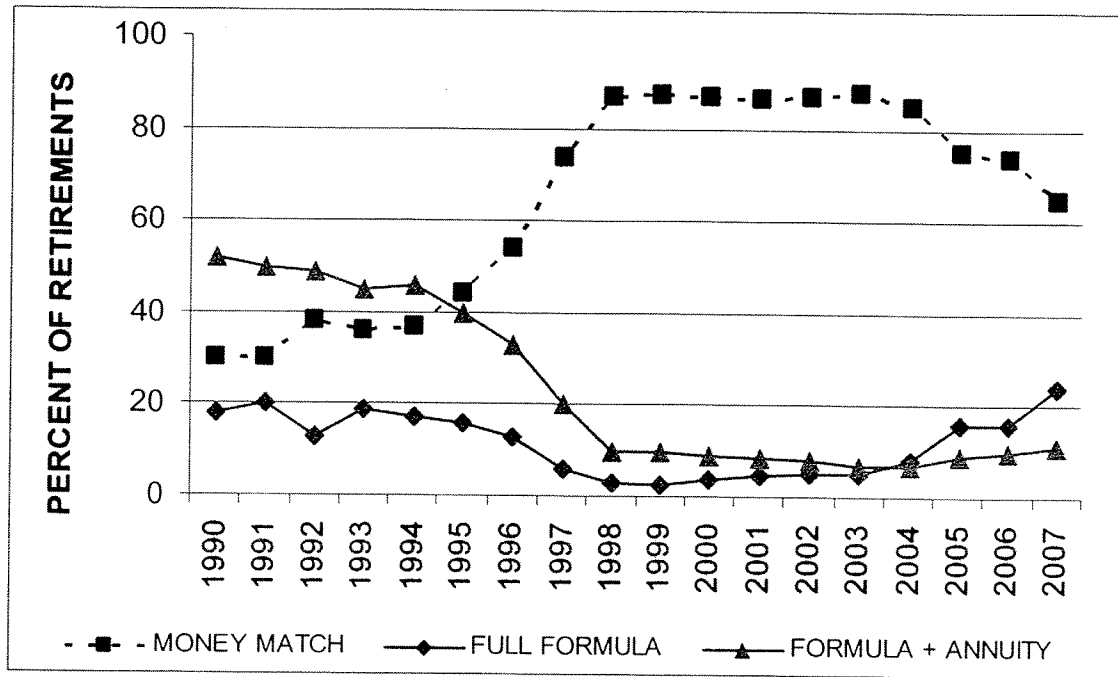
Year	1996	1997	1998	1999
Account crediting (%)	21.0	18.7	14.1	20.0

- Money Match benefits soar; becomes predominate retirement calculation
- Tier One accounts receive 8 percent “guarantee” during 2000-2002 market downturn

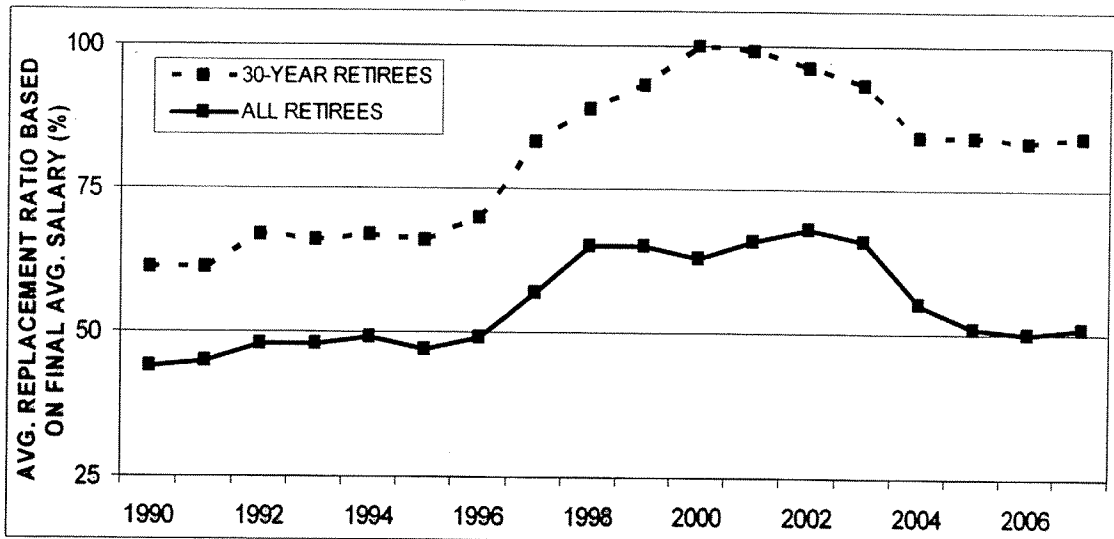
Earnings crediting to Tier One accounts



Retirement benefit calculation trends



- Investment losses and increasing liabilities create \$17 billion UAL (65 percent funded)
- PERS retirement benefits approach or exceed final salaries



PERS Reform Changes and Timelines

- January - August 2003: PERS reform bills enacted
- July 2003: Updated actuarial factors developed and applied
- July 2003: COLAs frozen for 21,000 retirees
- August 2003: Oregon Public Service Retirement Plan (OPSRP) implemented for new public employees

- September 2003: Five-member Board replaces 12-member
- January 2004: Six percent member contribution redirected to new Individual Account Program (IAP)
- 2003 and 2004: No regular account earnings credited to Tier One members

Reform Laws Challenged:

March 2005: Oregon Supreme Court's *Strunk* ruling upholds three key PERS reforms:

- Actuarial factors required to be kept current (reviewed every two years)
- Member contributions redirected to Individual Account Program (market returns with no guarantee or employer match)
- Tier One earnings crediting restrictions and reserve requirements (earnings over 8 percent now reserved for bad years)

March 2005: Oregon Supreme Court's *Strunk* ruling overturns PERS reforms that:

- Prohibited earnings crediting to Tier One members in bad years (PERS must credit 8 percent annually)
- Froze retirees' COLAs to recover 1999 earnings overcrediting (PERS must grant COLAs annually)

2005-2009: Oregon Supreme Court decisions and Settlement Agreement require PERS to:

- Reduce 1999 earnings crediting from 20 to 11.33 percent for 150,000 members and retirees
- Credit 8 percent to Tier One members for 2003 and 2004
- Recalculate 45,000 benefits to reflect revised earnings crediting
- Reinstate COLAs for retirees that were frozen

PERS' Retirement Plan Components

- One major program for 50 years
- Three major programs added since 1996; two in the last five years

Hire date	Plan			
	Tier One	Tier Two	OPSRP Pension Program	Individual Account Program
Before January 1, 1996	X			X
January 1, 1996 thru August 28, 2003		X		X
August 29, 2003 or after			X	X

- All members now participate in two programs, with up to three different accounts (regular, variable, Individual Account Program)

Four Retirement Programs

Program	Type of Member Benefits	Member Account(s) Subject to Losses	Benefit Calculation Methods	Formula Factors (final average salary x years of service x factor set by statute)	Full Formula Salary Replacement (30-Year Career)
Tier One	Hybrid DB/DC	Yes for DC & variable; no for regular account	Money Match, Full Formula, Formula + Annuity	1.67% general service; 2.0% police & fire (1.00% general service; 1.35% police & fire for Formula + Annuity)	50%
Tier Two	Hybrid DB/DC	Yes	Money Match, Full Formula	1.67% general service; 2.0% police & fire	50%
OPSRP Pension Program	DB	N/A	Full Formula	1.50% general service; 1.80% police & fire	45%
Individual Account Program	DC	Yes	N/A	N/A	~15-20% (projected at 8% annual return)

IAP Created by Legislature (2003)

- Provided a hybrid between defined contribution versus defined benefit proposals
- Shifted investment risk to members
- Stabilized Money Match liability for legacy Tier One and Tier Two members by slowing growth of legacy member accounts
- Part of the defined benefit plan created under the new OPSRP program
- Approximately 206,000 participants since January 1, 2004 (167,000 active; 35,000 inactive)

IAP Funding and Distribution

- Member contributes 6 percent of salary
- Contributions for existing members began January 1, 2004
- New members begin contributions after a 6-month waiting period and must work in a qualifying position (600 hours per year; can be for multiple concurrent employers, e.g., substitute teachers)
- Annual contributions averaged \$430 million since program inception
- Total IAP account value was \$2.15 billion as of December 31, 2007

- Retirees receive lump-sum payout or installment payments over 5, 10, 15, or 20 years (monthly, quarterly, or yearly) or over anticipated lifetime expectancy. Each distribution must be at least \$200

IAP Investment and Crediting

- Invested as part of overall PERS Fund; diversified, long-term portfolio
- Annual earnings crediting based on overall portfolio returns net of investment and administrative expenses
- No self-directed investment
- Returns net of expenses averaged 12.5 percent from 2004-2007

2004	2005	2006	2007
12.77%	12.80%	14.98%	9.46%

- 2008 returns through August 31, 2008 were negative 7.49 percent

IAP Administration

- External
 - Third party administrator (TPA) for record keeping, account website, distribution processing, and tax reporting
- Internal
 - Employer reporting and prior period adjustments processing
 - Contributions, employer billing and collection, and transfer to State Treasury for investment
 - Intake and processing for account withdrawal and retirement applications
 - Customer service delivery, annual statements, and issue resolution

IAP Lessons Learned

- Membership eligibility screening results in a large number and variety of prior period adjustments
- Problems with electronic employer reporting and complex membership eligibility rules can lead to uneven contributions and earnings disputes
- Flat-rate administrative cost deductions in early years appeared excessive and onerous (now deduct administrative costs before earnings crediting)
- Split administration (internal and TPA) has been challenging for all aspects of program, particularly distribution processing and related customer service
- Insufficient program planning and development timeframe (four months) required major remediation in the program's second year

Results of Oregon's Reforms:

- Reforms plus good earnings and pension obligation bonds close \$17 billion UAL hole in three years
- System funded at 112 percent with another \$2.5 billion in reserves as of December 31, 2007
- Employer rates peaked at 15 percent; will range from 5 to 12 percent in 2009

- Named “2007 Public Plan Sponsor of the Year” and declared “the best funded pension system in the country”
- System still vulnerable to investment return volatility but better able to get ahead with good earnings and absorb poor earnings

Key points:

- Oregon has a single system that covers most state and local employees, and teachers
 - All Oregon employees participate in social security
- Oregon has 320,000 members and retirees: 167,000 active; 48,000 inactive; and 105,000 retirees
 - By contrast KRS has approximately 445,000 members and retirees: 320,000 active; 125,000 retired and less than half of the total assets of PERS.
- *Investments generate over 80% of PERS annual revenue*
- *Oregon has a bifurcated board: one board for investments and one board for governance*
- *The combination of regular funding and top tier investment returns has generally kept employer contributions for the PERS system in the 10-12% range.*
 - Even when the UAL peaked at \$17 billion, employer contributions were 15%
- *Oregon was able to eliminate the UAL in three years by a combination of pension reform, top investment returns, and the issuance of a Pension Obligation Bond (POB)*
 - Each component contributed approximately \$6 billion toward the elimination of the UAL
 - *Pension reform in Oregon included a decreased benefit formula for current employees*
- *The creation of the Individual Account Program, a DC plan, did not reduce or eliminate the UAL*
- The system had difficulties as a result of a hybrid formula that credited investment earnings to an individual account within a DB plan, PERS would match the account values at retirement
- The “Money Match” formula was modified in 2003. The Oregon Supreme Court has upheld this change to a retirement formula for existing employees.
- In 2004, member contributions at 6% of pay were redirected to a new Individual Account Program, a DC account within a DB plan. The account is credited with actual market investment returns. There is no guarantee of benefits and no match.
 - *The LAP allows for no individual investment control*

- *The implementation of the LAP was legislated to take less than four months, which led to significant problems and required “remediation” in the second year*
- Another part of Oregon’s reform was to create a new retirement tier that reduced members’ final compensation benefit

Presentation: Patrick Welsh, consulting actuary:

Patrick Welsh: is the subcommittee's primary consulting actuary, he is a Fellow of the Society of Actuaries (FSA), and an Enrolled Actuary (EA). He has a B.S. from Georgetown University. Mr. Welsh has over 30 years of pension experience. From 1978-2003 Mr. Welsh was President of Benefit Actuaries, Inc. Mr. Welsh was Regional Vice President of Invesmart Inc., from 2000-2003. During this time, Mr. Welsh's firm converted hundreds of private sector defined benefit plans to defined contribution plans. The conversions were to all types of defined contribution plans, including profit sharing, money purchase, and non-qualified plans. However, the majority of conversions were to 401(k) plans. As the firm's chief actuary, Mr. Welsh was directly involved in design consultation and the actual conversion process.

From 1978-present, Mr. Welsh's firm also provided comprehensive defined contribution administrative services to corporate clients throughout the United States. Services included consulting, government filings, employee communication and recordkeeping, as well as telephonic and web-based employee administrative services for 401(k) plans.

Most recently Mr. Welsh was employed by Speaker Jody Richards through the Kentucky House of Representatives as the consulting actuary for both House Bill 600 and House Bill 1.

Introduction:

- The subcommittee has heard excellent presentations from representatives of various states and professional organizations who have focused primarily on what has been done or is being done in other states. This report will concentrate on Kentucky's situation -- not what is or is not working for others. It will focus on where we are; some of the design possibilities that were considered by the 2008 legislature; and two examples of DC plans that were not considered at that time, but could make sense if funds were available. We will also look at some of the characteristics of defined benefit and defined contribution plans which are pertinent to the Kentucky situation.
- As a pre-note, to the extent that plan cost numbers are presented herein, they are primarily based upon the June 30, 2007 regular actuarial report and special actuarial valuations of Cavanaugh Macdonald, the actuarial firm for both the Kentucky Retirement System and the Kentucky Teachers' Retirement System. All those valuations were based upon trust asset values and participant data as of June 30, 2008.
- Another point to keep in mind is that the areas being considered by this subcommittee are not independent of some of the other working group subcommittees. The freedom to consider structural changes in the retirement system is, to a major extent, controlled by the funding requirements of the current system. Funding requirements are affected by investment returns, which can be affected by securities litigation. Overall funding of the retirement systems is determined by the cost of the retiree health program, as well as by the cost of retirement benefits.

Areas to Be Covered:

- This report will concentrate on pension benefits in the Kentucky Retirement System. Although KRS includes retiree health benefits, those are not considered to directly affect structural decisions involving DB vs. DC retirement plans. It should be pointed out, however, that the type of retiree medical plan that covers KRS employees hired in the past five years is sometimes referred to as a defined contribution plan.
- It should also be pointed out that the existence and level of pension benefits and retiree medical benefits do impact each other. For example, systems that have pre-65 retiree medical coverage will experience a greater incidence of early retirement than those that do not. This generally increases the cost of a DB plan. Also, pension plans -- or DC plans that build large accruals -- that encourage early retirement will add to the cost of the retiree medical plan.
- Specifically, we will attempt to answer the following question regarding the retirement systems:
 - Design Challenge -- What is the overriding characteristic of the Kentucky Retirement System that restricts system design?
 - Operational Challenge -- What will limit the flexibility of the legislature and the administration for many years to come in operating the state's retirement program?
 - Pension Reform to Date -- What has been done in 2008 to address the funding challenges of the system and to evaluate alternative retirement benefit structures?
 - Retirement Philosophy -- What are the important differences between defined benefit and defined contribution plans?
 - Defined Contribution Possibilities -- If funding is available, what types of DC plans could make sense for Kentucky?
- For the most part, this report will discuss the Kentucky Retirement System (KRS), although the same principles apply -- with two significant exceptions -- to the Kentucky Teachers Retirement System (KTRS). First, KRS participants are covered by Social Security, while KTRS participants, with a few exceptions, are not. Second, the 1.5% per year COLA for retirees is pre-funded by KTRS, but not by KRS.

The Inviolable Contract:

- This topic has been covered extensively. Governor Fletcher's Blue Ribbon Commission determined that Kentucky's Inviolable Contract provision is the most airtight contract between a public body and its employees in the country.
- Nevertheless, the existence of this contract cannot be emphasized enough.
- According to the commonwealth's constitution, no changes can be made in pension benefits for existing participants in the Kentucky Retirement System or the KTRS. This applies to all participants -- active, retired, non-hazardous, hazardous, state police.

Changes can only be made for future employees. A change in benefits for future employees was the primary action of House Bill 1, passed in June of this year.

- An exception to the "no change" rule applies to future annual COLA increases for KRS retirees. These post-retirement benefit increases can be modified, suspended or stopped altogether. In fact, House Bill 1 recognized the costs associated with the COLA and availed itself of the legality of change and reduced the KRS "normal" COLA from 3.0% to 1.5% per year.
- Since, as a result of the Inviolable Contract, changes made in plan design or structure will not affect the benefits of existing employees, any such changes will not reduce the \$20 billion unfunded actuarial liability of the systems. This is true for any changes made in plan structure or plan provisions.
- Legislation could be drafted in January that would put all new employees in a DC system and it would not affect the size of the unfunded accrued liability nor the rate at which pension benefits accrue for current employees.

House Bill 1 Funding Schedule:

- In order to begin addressing the Unfunded Actuarial Liability, House Bill 1 included a funding schedule that requires that funding increase annually until the ARC -- Actuarially Required Contribution -- is being 100% funded by the 2024-2025 fiscal year for KERS non-hazardous participants. The actual 2008-09 contribution is only 35% of the ARC.
- The schedule requires ARC funding in shorter periods of time for KERS hazardous participants and state police, groups that have significantly fewer participants than KERS non-hazardous. For KERS hazardous, 100% ARC funding is to be reached by the 2018-2019 year and for state police, by 2019-2020.
- It has been mistakenly supposed by some that in reaching the ARC, the plan will be well funded -- or that the unfunded liability will have been paid off. Not true. The ARC is the amount that should be contributed to the system every year, much like a mortgage payment.
- If you were not paying your full mortgage -- and if your banker would let you -- your principal balance would grow every year and your annual payments would increase. That is what happens with the retirement system. Every year the full ARC is not funded, the ARC and the unfunded liability can be expected to grow. For KERS non-hazardous, the scheduled funding could conservatively produce an ARC of \$1.2 billion by 2024-2025, compared with about \$180 million currently. This will require in excess of \$60 million in additional new funding each and every year for the next sixteen years.
- The unfunded liability will only begin to be reduced when the state is funding the full ARC. The only other way the unfunded accrued liability can be reduced is by favorable actuarial experience -- factors such as investment returns better than assumed, for

example. Other factors would be such things as pay increases, retirement rates, other employee terminations and death rates.

Summary of Inviolable Contract and Funding:

- So, to summarize these two areas -- the contract and the funding schedule -- the design restrictions and funding requirements will require significant increases in funding each year for many years to meet the systems' funding obligations to current participants. In fact, even following the HB 1 funding schedule, it will be many years before the UAL begins to decrease.

Change in Pension Benefits:

- For prior participants, unreduced retirement benefits could be paid at any age with 27 years of service. Under the HB 1 "Rule of 87" the earliest age of unreduced retirement is age 57 with 30 years of service.
- To retire early, a new employee will need to be at least age 60 with ten years of service (60/10). Previously, 55/5 or 25 years, regardless of age, would do.
- The benefit accrual factor has been either 1.97% or 2.00% for non-hazardous KRS employees. For new employees, it is now 1.75% at full retirement and grades down if employment terminates with less than 26 years of service.
- For Final Compensation, the averaging period was lengthened and terminal pay will no longer be included in the calculation.
- These changes reduce costs in two ways. First, they will lower the amount of the pension benefit for future employees, versus current employees. Second, and even more important, they will encourage people to retire later. Later retirement is a powerful two-way cost reducer. Participants will be paying into the system for a longer period of time and will be drawing benefits for a shorter period of time. As life expectancy continues to improve, this becomes even more important.
- As an example of the importance of extending the retirement age, the American Academy of Actuaries has just made a formal recommendation to extend the normal retirement age for full Social Security benefits to 70. Whereas it is now scheduled to top out at age 67, extending the full retirement age to 70 would eliminate 50% of the Social Security system's projected long term shortfall.
- All these changes to retirement requirements -- and numerous other changes that reduce future plan costs, will affect only new employees.

COLA:

- One provision of HB 1 that will affect the benefits of existing participants is a reduction of the "standard" COLA annual benefit increase from 3.0% to 1.5% per year. At the rate that retirement payments are growing, this change is expected save KRS as a whole -- all parts -- over \$400 million in the five year period ending June 30, 2014. This is actual

cash that would otherwise be paid from the trust funds if the change had not been made. Because of the compounding nature of the COLA and the aging of the KRS population, the cash flow "savings" will grow exponentially in years beyond 2014.

- Although the reduction from 3% will save hundreds of millions of dollars, the remaining 1.5% COLA will still produce hundreds of millions of dollars of negative cash each year, if the increases do occur. And, because the COLA is not prefunded and is not recognized in plan liabilities until granted each year, any such increases will generate additional unfunded liabilities that will be subject to the ARC funding schedules set forth in HB 1.

Annual Cost Comparison:

What did HB 1 Accomplish? -- Annual Cost for New Employees

Employer Normal Cost – Pension Only				
	Employee	Prior to HB 1	After HB 1	Annual Payroll
KERS-Non	5.00%	2.97%	1.11%	\$1,780,223,493
KERS-Haz	8.00%	6.31%	3.27%	\$ 144,838,020
CERS-Non	5.00%	3.12%	1.21%	\$2,076,848,328
CERS-Haz	8.00%	7.38%	4.66%	\$ 459,998,956
SPRS	8.00%	8.97%	5.05%	\$ 49,247,580

Note: For the non-hazardous groups, a new employee is paying over 80% of the pension cost. Typical corporate 401(k) match is 50% of the first 6% deferred.

- The chart shows the employee contribution rates and the employer pension normal cost rates for a new employee before and after House Bill 1. The "normal cost" is the cost of the benefits that an employee will earn in a given year. It is a reasonable estimate of what the cost of the pension benefits would be if we did not have an unfunded liability.
- Although HB 1 added an additional one percent of pay to the employee cost, that amount is targeted for retiree health benefits. So, it is not included in this chart which concentrates on pension benefits.
- Contribution differences for both employers and employees between hazardous and non-hazardous employees reflect differences in benefit accrual factors and unreduced retirement provisions. Within a category, differences in employer contributions reflect demographic patterns, such as expected retirement age.

- Consider two things that this chart illustrates. First, House Bill 1 did reduce pension costs significantly for new employees. For KERS non-hazardous, the normal cost is 63% lower after HB 1.
- Second, even under the old system, employees paid the majority of the normal cost. Under pension reform, a new employee will pay more than 80% of the normal cost of the benefit. Since employees are paying the majority of the normal cost, any structural change which took part of that money out of KRS would be a loss as far as funds available to fund toward the ARC.
- In comparison to this 80%+ ratio of employee to employer funding for KRS non-hazardous employees, in a typical corporate 401(k) plan, the employee contributes two-thirds of the money going into the system. This is based on the most common matching formula of 50% of the first 6% of pay the employee defers. So, an employee who defers 6% of pay will receive an employer match of 3% of pay.
- A major reason for the migration from defined benefit to 401(k) in the corporate world was to transfer the majority of the plan cost from the plan sponsor to the employees.

Comparison of Various Proposals:

Comparison of KERS Non-Hazardous Costs

Annual Pension Cost for New Employees		
	Normal Cost	Primary Difference from HB 1
House Bill 1	1.11%	
Revised Senate Proposal	1.65%	Employee Choice: Matched 1% DC or Full DB after 5 yrs.
Original Senate Proposal	2.40%	1% of Ee Contribution to a Matched DC Account
Original House Proposal	1.31%	Rule of 85 for Unreduced Retirement
Prior to House Bill 1	2.97%	

- The chart -- which is best read from bottom to top -- shows the before and after pension reform normal costs for the KERS non-hazardous group from the previous chart, but also

includes three of the major proposals made during the regular session of the general assembly and in the interim discussion period that led to the special legislative session.

- In substance, the original House Bill 600 was quite similar to what was finally enacted in June. Although the final version added a number of cost-saving provisions, the single difference that most affected pension benefits was that the original House Bill 600 had full retirement under a "Rule of 85" (age 55/30 yrs.) and the final House Bill 1 uses the "Rule of 87" which requires that age plus service must equal at least 87 with a minimum age of 57. This seemingly subtle change, which was first proposed by the Senate, will actually save millions of dollars each year for both parts of the system -- pension and retiree health. As noted in Section 6 above, extending retirement has a powerful impact on system cost.
- The more interesting proposals were the Senate's hybrid structures -- part defined benefit and part defined contribution. The original Senate proposal would have split the 5% employee contribution so that 4% would continue to go into the DB part of the plan and the other 1% would go into a new DC component. The DB accrual rate was 1.14%, rather than the 1.75% in HB 600. An employee's other 1% of pay would go into a DC account that the system would begin matching after five years of service. The match would start at 2.00% of pay and increase to 2.5% of pay after twenty years. As you can see, this proposal was more expensive than House Bill 600. That is primarily because the match was so rich. The match accounted for 70% of the cost of this proposal.
- What Mr. Welsh calls the "Revised Senate Proposal" would have offered the employee a choice. Again, 4% of the employees' contribution would go to a DB plan with a reduced accrual rate. The remaining 1% of employee money would go into a DC account. At the end of five years, each participant could choose to continue the DC account with matching or to opt fully for a DB benefit, with the DC account money transferring to the DB plan. There are a variety of reasons that this proposal was more expensive, but, for the most part, those differences could have been designed away.
- The real difficulty with an employee choice plan is that you encounter anti-selection -- a concept in which people will make the choice that is in their best interest and to the financial detriment of the system. The people who will benefit most by a DC plan -- younger hires and those who do not plan to stay for their whole career -- will opt for the more financially advantageous DC plan. Those hired at older ages and expecting to retire from the system will be inclined to take the defined benefit. During the Florida presentation it was explained that the way in which benefits build up is relatively level from year to year in a DC plan and heavily back loaded to the years nearer retirement in a DB plan. So, if a participant does not expect to stay until retirement -- or close thereto -- it is better to be in a DC plan, all other things being equal.

- *The biggest problem with the two hybrid proposals is that any state money -- and to some extent, employee money -- that goes to fund a DC account is money that is not going into the DB trust to help meet the HB 1 funding requirements and eventually to reduce the unfunded liability.*

Benefit Adequacy:

- HB 1 does a very good job of reducing long term costs, recognizing the Inviolable Contract limitations. What does it look like from the other side of the table? Are the benefits for the employee of the future expected to provide adequate retirement income?
- For a new KERS nonhazardous employee, the new retirement benefit tier does provide adequate retirement income when the participant is eligible for Social Security. Slide 9 estimates that 82.5% of pre-retirement income will be replaced. This is well within the industry accepted standard of 70-90%.
- The thirty percent Social Security figure is an average replacement percentage which varies by each individual's career earnings. For lower paid employees, the percentage will be higher and for higher paid employees, the benefit ratio is lower. Future participants who retire before Social Security eligibility will have a lower replacement ratio, but that would be partially offset by the value of pre-retirement medical benefits. Obviously, there are a number of variables in projecting thirty or more years in the future.
- Since KTRS employees do not participate in Social Security, age at retirement does not impact their benefit replacement ratio, only length of service.
- Two additional points should be made concerning Social Security. First, Social Security includes an annual COLA adjustment. For 2009, the benefit increase will be 5.8%. Thus, for eligible KRS participants, there is an annual benefit increase in addition to whatever the system pays. This is not true of the teachers' system.
- Second, the fact that KTRS does not participate in Social Security would create a greater additional risk to participants if a defined contribution plan was a significant part of their benefit structure.

Defined Benefit Plan Focus:

- A DB plan looks to the future. It answers the question, "What will I have after I retire?" Security is a key value of a defined benefit plan.
- Obviously, security is not only determined by plan structure, but also by the funding status and the cost of the plan, as well as the plan sponsor's commitment to continue the plan. One of the things that have happened in the private sector is that many employers have not been committed to their plans. Those plans have been frozen or terminated and, in some instances, assets were not sufficient to pay the benefits that had been accrued.

401(k) Plan (DC) Focus:

- For a 401(k) plan, the key characteristics are the points:
 - the power of compound interest, with real benefit to those who start early;
 - employee deferrals, employer match and investment earnings that are not taxed until withdrawn from the trust;
 - participants are rewarded for saving by their employer's matching contributions;
 - immediacy, rather than the long term picture, is the focus; the participants know what they have and can control it.
- Mr. Welsh testified, "During my career, I have done thousands of employee meetings. And, the points contained in Slide 11 are exactly how we presented 401(k) plans and how virtually everyone in the industry "sells" the benefits of 401(k) plans in order to generate employee appreciation and increase employee participation. A 401(k) plan is very oriented toward savings. It also focuses primarily on the present -- tax advantages, employer match, know what you have, choice, access. Note that one of the chief attractions of a 401(k) plan is the lump sum payout which encourages participants to make bad choices."

DB vs. DC Comparison:

- A defined benefit plan is a retirement vehicle for long term employees. If you are only going to stay at an employer for a few years after vesting, a defined contribution plan will give you a better termination benefit, particularly if you are younger.
- A 401(k) plan is primarily a savings vehicle. This is not a derogatory comment, however. Savings is good and Americans are notoriously poor savers. Because of the tax advantages and typical employer match, a 401(k) plan can be an excellent savings vehicle.
- But it is important to understand why the 401(k) plan is the force in the private sector that it is -- even among very large employers. A key component of the tremendous growth of these plans was effective marketing by mutual fund companies. Employers embraced this trend because most of the cost was transferred to employees. Unlike the Kentucky Retirement Systems, in a typical corporate DB plan, the employer pays the total cost. Employers were also able to avoid complex and burdensome IRS regulations and accounting rules by moving away from defined benefits.
- The transition from DB to DC plans was also fueled by participants with whom 401(k) plans were very popular during the investment boom days of the 1990's.

Merits of a Matched 401(k):

- Rewarding savings is good. Kentucky already has an excellent deferred compensation plan that more people would take advantage of if the state were to match their deferrals.
- About thirty percent (30%) of state employees actively defer in the current deferred comp system, even with no match. Some school districts that do match have average

participation rates of 72%. A well communicated corporate 401(k) plan with a 50% match will have 70%-90% participation.

- Also, if desirable, the plan can offer features that appeal to participants ("sizzle"), such as daily valuation with investment changes, hardship withdrawals, loans, portability.

Sample 401(k) Plan (Hypothetical)

What Would A Match Cost?

- Assume a voluntary 401(k) for new employees only
- Matched 50% up to 2% of pay (employer cost is 1%)
- With 60% participation, first year cost is \$900,000
- Year five cost is \$3,300,000
- Cost continues to grow annually
- Total KERS-non payroll is \$1.8 billion (1% = \$18 million)
- Can reduce cost with design features
- one year eligibility
- 3-5 year vesting
- dollar match maximum, *e.g.* \$300

Another DC Design--Appointee Accumulation Plan

- restricted to non-merit employees earning \$50,000 per year
- people who serve in significant positions, but are only expected to work in government for a few years
- participants contribute 5% of pay with 20% match
- employer makes remainder of full contribution to KERS
- cost is 1.0% of covered payroll, approx. \$800,000 per year
- cost of match is less, if participation is voluntary
- cost doesn't grow significantly over time
- The above sections are hypothetical. They are examples of the type of plan that could integrate with Kentucky's current DB structure. The first is a voluntary plan that would be restricted to new employees. (The justification for not opening the plan to all employees would be the benefit reductions for new employees that were illustrated earlier.)
- The initial cost would be relatively low and would be even lower if a 3-5 year vesting schedule and one year eligibility requirement were in place. These design features would be effective in controlling costs because of the high rates of turnover in the first five years of employment. Thus, although the sixty percent participation rate is arbitrary, it is valid to assume that new employees would be less likely to participate than the entire employee population.
- Although there is a great deal of turnover in the first five years of employment, the number of participants would rise rapidly. If such a plan were started today, by the end of

five years over 40% of active employees would be eligible to defer. After ten years, more than 60% of the workforce would be eligible to participate.

- Although it is certainly possible to incorporate design features that would limit the ultimate cost to \$5 million per year, the issue must be considered that dollars spent on this plan would be dollars not going to meet the contribution requirements of the Kentucky Retirement System.

Appointee Accumulation Plan:

- This is another hypothetical example of a DC plan whose design could be applicable to Kentucky. This DC plan would be aimed at a specific, limited group of employees. The plan would cover political appointees, i.e., non-merit employees. Our example would cover those who earn over \$50,000 per year. That is about 940 people. The size of the group could be cut in half if the threshold was \$80,000 of annual pay.
- The people who participated in this plan would NOT participate in the KRS, but their employers would contribute to that system as if they were in KRS, less the cost of the match. The cost to the retirement system is, therefore, the cost of the match, which is 1% of covered payroll.
- For example, if the KERS-nonhazardous employer contribution rate was 15% of pay in a given year, the non-merit employee's employer would contribute 14% to KERS and 1% to the AAP. If the size of the group does not change, cost should remain relatively constant, increasing only as average pay increases.
- The rationale for this coverage is that these people are serving the state under special circumstances and would never become vested in the KRS. The AAP would provide immediate 100% vesting. Note that some of the people who would be fit the employee category for such a plan would not be new hires, but would come from merit positions. These employees would, therefore, be excluded from the AAP, which would further reduce the cost of the AAP.

Funding Challenge:

- Any discussion of the state retirement system must keep in mind the funding schedule contained in House Bill 1. State officials should also realize how important it is to follow (or exceed) this schedule in order to provide benefit security to our retirees and to our current employees. Reaching ARC funding does not mean that the system is fully funded. It is only the starting point to begin to fund adequately and to reduce what is now a \$20 billion liability. This liability, which is the total for both KRS and KTRS, will continue to grow until we reach and fund at the ARC level year after year.
- The HB 1 funding schedule is more than just a part of a piece of legislation that a future legislature can change. It is a necessity if we are going to meet our obligation to provide the benefits that have been promised to over 300,000 current and retired public employees.

- Looking at our group of non-hazardous state employees, a conservative estimate is that when the 100% level is reached, the ARC will exceed 40% of payroll, requiring an employer contribution of \$1.2 billion for the 2024-2025 fiscal year. For the current fiscal year, the contribution rate is 10.01% of payroll, which is 35% of the ARC, or about \$180 million.
- Funding schedules for state police and for other state hazardous duty employees require full ARC funding beginning at even earlier dates. Although those groups are smaller, their current required contribution rates are 60% of pay for state police and 35% of pay for other hazardous employees.
- These contribution figures do not include the potential impact of any COLA adjustments, which are not pre-funded in the Kentucky Retirement System. Those COLAs would further add to the unfunded liability, increase the ARC and strain the system's cash flow.

Summary:

- The key points to be considered in determining the viability of any defined contribution structure for the state retirement systems are:
 1. The Inviolable Contract severely restricts the changes that can be made for existing participants.
 2. The state has a challenging funding schedule that was included in the 2008 pension reform legislation. The HB 1 funding schedules are not only a legislative mandate, but are also necessary to provide benefit security for participants.
 3. House Bill 1 reduces benefit accruals for future employees, while still providing adequate retirement income. The new benefit tier is the least costly of all proposals considered by the legislature and most effective in utilizing contributions to meet funding targets.
 4. Defined benefit plans are true retirement systems. While defined contribution plans can be used to produce retirement benefits, they are basically savings vehicles, the third leg of the retirement stool.
 5. There are supplemental defined contribution systems that make good sense in that they reward savings or recognize specific situations. However, they do involve some cost.
- Note: Actuaries are trained to take a long term view of financial matters. That is why this report has been shaped to a great extent by the limits of the Inviolable Contract and the challenge of providing adequate funding. But, in current economic conditions, it is important to consider the reality of our current financial crisis and the great drop in asset values that has occurred in the past twelve months.

Retirement plans are investment vehicles. With a defined benefit plan, the plan sponsor bears the investment risk. With a defined contribution plan, the participant bears

that risk.

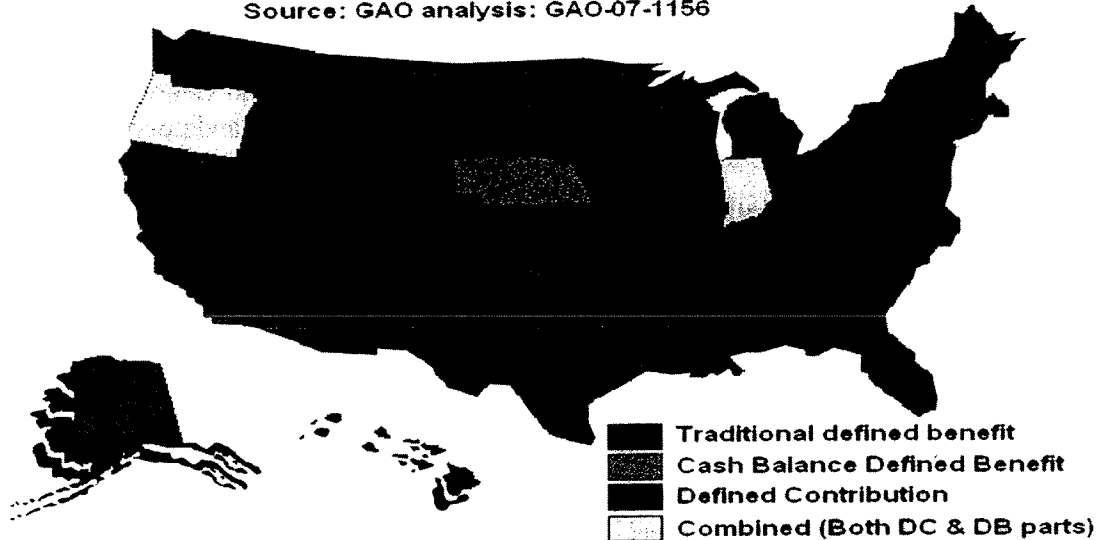
Thus, for Kentucky, if economic conditions do not improve and lead to a robust market recovery, the ARC and, therefore, the KRS funding requirements will rise, perhaps as soon as the next budget cycle. This will, of course, also affect the CERS and the KTRS.

Also, this will be a difficult time for defined contribution plan participants, particularly those who are retired or are contemplating retirement.

Kentucky Public Pension Work Group
Defined Contribution Plan Subcommittee
Summary of National Findings:

Nationwide Wide Offering of DC vs. DB Only Plans

Types of Pension Plans in Place for Newly Hired State Employees, 2007
Source: GAO analysis: GAO-07-1156



Plans depicted are those which require participation in a certain model, not including options programs for alternatives such as those in Kentucky and New Jersey.

- *On a statewide basis, only two states provide only a DC plan to broad worker groups: Alaska and Michigan.*
 - Since July 1, 2006, all new hires in Alaska, including public school teachers, state workers, and employees of political subdivisions that participate in the AK PERS, may participate only in a DC plan administered by the PERS.
 - Since March 1, 1997, all newly-hired Michigan state employees have had access only to a DC plan.
- Since 2000, Florida, South Carolina, Ohio, Montana, and Colorado have established optional DC plans for broad employee groups as the primary retirement benefit.
- *In each of these states, the percentage of those electing to switch from the DB plan to the new DC option has been relatively small (~ 5%). However, in Florida, South Carolina, and Colorado, the percentage of new hires electing to participate in the DC plan has been higher (15-20%).*
- *Testimony from Florida revealed that higher participation is directly attributable to an excellent education program that cost over \$22 million implement.*
- Ohio offers new hires participating in the PERS and TRS a choice between a DB plan, a DC plan, or a hybrid. From 1/1/03 to 3/1/06, a total of about two percent of new hires elected either the DC plan or the hybrid.

- According to the Government Accountability Office (GAO), approximately 22 percent of state and local government workers participate in an optional DC plan sponsored by their employer.
 - The participation rate of optional supplementary DC plans is significantly higher in cases where the employer provides a match to employee contributions.
 - Anecdotal evidence suggests that participation rates are significantly higher in optional supplementary DC plans, such as in Texas and Virginia, in which an automatic enrollment feature is in place for new hires.
- Several states, including Indiana, Ohio, Washington, Oregon, and Georgia, have established hybrid retirement plans made up of a DB plan and mandatory participation in a DC plan.
 - Indiana has maintained its hybrid structure for substantially all public employees in the state for decades.
 - Contributions to the DC component in the Oregon PERS hybrid plan are invested solely in a pooled fund that is invested in the same manner as the big DB plan fund. This strategy reduced administrative costs, reduces investment risk, and provides exposure to asset classes, such as private equity and real estate, that participants may otherwise not be available to individual account holders.
 - Participants in the Washington hybrid plan may direct their DC plan contributions to one of a several options, including a fund that mirrors the DB plan fund.
 - Ohio and Indiana maintain mutual fund-like investment vehicles for DC (and, in the case of Ohio, hybrid also) plan participants. These vehicles differ from typical DC plans in that values are not updated daily and participants' ability to transfer assets and contributions among fund options is limited.

Plan experience for defined contribution models:

- Mr. Brainard testified the experience of public plan sponsors with DC plans varies widely and defies brief characterization. Also, fully and accurately assessing the experience of a switch from a DB to a DC plan requires decades of experience, which is not yet available.
- Mr. Brainard did offer some observations of the state and local government experience with DC plans:
 - Of the five percent or so of Michigan state employees who elected to switch to the DC plan in 1996-97, some have continually and unsuccessfully sought legislation permitting them to return to the DB plan.
 - The employer actuarial required contribution to the closed Michigan SERS DB plan has increased from 5.6 percent of payroll (\$126.4 million) in FY 98 to 17.6 percent (\$316.3 million) in FY 07, and the plan's funding status has declined from 108.8 percent in FY 98 to 85.1 percent in FY 06. This decline is due to the employer's failure to pay the full required contribution and to investment returns below the assumed rate.
 - In Alaska, a memo prepared by the commissioner of the state department that oversees retirement systems, dated March 17, 2008, stated that with respect to the

impact of switching to a DC plan on employers' ability to recruit new employees, "[i]t is simply too soon to tell." The memo also indicated that employer contributions are projected to rise "dramatically."

- The actuarial required contribution to Alaska PERS increased FY 05 to FY 07 from 10.72 percent to 13.72 percent.
- Research shows that most workers, particularly new hires, pay little or no attention to their retirement benefit, and little desire exists among workers for employers to switch to a DC plan in lieu of a DB plan. The vast majority of participants, who have a choice of retirement plans, do not actively make an election, but rather, default into the plan established as the default plan.
- ***Nebraska (which had the oldest DC plan in the Country) and West Virginia in recent years have elected to switch broad worker groups from DC to DB plans.***
 - *A 2002 benefits adequacy study of state and county workers in Nebraska found that participants were retiring with inadequate assets on both an absolute basis and relative to their peers in surrounding states. This study was the impetus for legislation to switch new hires to a hybrid, cash balance plan.*
 - *In 2005, the West Virginia Legislature reopened the DB plan for public school teachers. This plan had been closed to new hires since 1991. The WV legislature found that the DC plan was not reducing employer costs and in response to requests from participants, who contended that the plan was not providing an adequate level of retirement income.*

Kentucky Public Pension Work Group
Defined Contribution Plan Subcommittee
Summary of DC vs. DB Findings:

Major Defined Contribution Plan Benefits:

- ***Individual account portability.*** DC plans are more attractive to younger individuals that tend to change careers or members that are in and out of the retirement system.
 - In Florida the majority of individuals who first elected to join the DC plan were younger employees.
 - DC plans provide advantages to individuals who will not stay long enough to vest in a DB system
- ***Self-determination of investments.*** Some members in DC plans have the opportunity to exceed market returns in investment, and have the freedom to choose which types of investments they want utilize.
 - Note: Not all DC plan types allow for individual control of investment, e.g. Oregon.
- ***DC plans encourage individual savings.*** Mr. Welsh testified that “Rewarding savings is good. Kentucky already has an excellent deferred compensation plan that more people would take advantage of if the state were to match their deferrals.”
 - About thirty percent (30%) of state employees actively defer in the current deferred comp system, even with no match. Some school districts that do match have average participation rates of 72%. A well communicated corporate 401(k) plan with a 50% match will have 70%-90% participation.
 - Also, if desirable, the plan can offer features that appeal to participants ("sizzle"), such as daily valuation with investment changes, hardship withdrawals, loans, portability.
- ***Employers benefit from shifting investment risk onto employees.*** In a DC plan if market conditions fail and an individual's account is depleted the state is not responsible for the lost benefit. In a DB plan members are guaranteed a retirement benefit.
 - Concerns should be noted that by eliminating investment risk, employers also experience the lack of investment gains.
 - Investment returns in DB plans help to reduce employer contributions for their annually required contributions.
 - In years where investment returns are superior, employers pay less to deliver retirement benefits
 - Oregon's employer contributions are 80% covered by investment returns.

Major Defined Contribution Concerns:

- ***Members of a DC plan can outlive their retirement*** benefit and are dependent upon individual plan savings. Once the account is depleted, members lose their retirement income.

- Working private sector individuals participate in Social Security, most teachers and many hazardous duty personnel in Kentucky do not.
- Social Security provides a “safety net” that some public sector individuals simply do not have.
- Many states, including Oregon, that offer DC plans do participate in Social Security.
- With the issue of portability, this is again a function of plan design. Economic portability can be brought into a DB plan. However, individual account portability is a particular function of DC plans. ***Portability allows plan participants to not only change careers more easily, it also allows them borrow against their retirement savings.*** Mr. Welsh Testified, “One of the chief attractions of a 401(k) plan is the lump sum payout which encourages participants to make bad choices.”
- Second, concerning self-determination of investments Mr. Francis testified, “***DC plans do give self determination, but to what end? If plan members are unequipped to handle investment and retirement self determination you haven’t really given them a benefit.***”
 - West Virginia and Nebraska also illustrate the downside of self-determination for most participants in DC plans.
 - On the average professionally managed DB investments earn 1-2% per year more than individuals in DC plans. These percentages compound over the career of individuals to produce significant disadvantages.
 - In Nebraska, the oldest DC system in the country, the state moved to a cash balance defined benefit plan when it was found that on the average Nebraska employees were earning 6% less on average due to poor investment returns.
 - Similarly in West Virginia, Ms. Lambright testified that individuals in the DC plans there were lagging in the 5-8% range for investment returns.
- Mr. Brainard testified that ***one of the major problems with DC plans is the ability to provide death and disability coverage for hazardous duty personnel.*** DC plans cannot account for these benefits unless additional coverage is purchased. The cost of coverage must be weighed against the efficiencies included for DB plans.
 - Mr. Brainard spoke to the fact that one of the major reasons for California’s failed attempt to move toward DC accounts was the inability to resolve the hazardous duty death and disability issue.
- Finally, Mr. Francis with the Florida State Board of Administration testified, ***DC plans by their nature have higher fees that are borne by individuals. The fees in DC plans serve the interests of the companies that sponsor them.***
 - Ms. Lambright testified that currently in West Virginia the state is being sued by members of the TDC for alleged unscrupulous business practices involving the aggressive marketing of DC plan options.

Major Defined Benefit Plan Benefits:

- ***Defined benefit plans are more efficient at providing members with retirement income.*** For an employer that means that on the average they are 46% more economically

efficient at delivering the same level of retirement income to *career* retirees than DC plans.

- All-in costs savings in defined benefit plans = 46%
 - Longevity risk pooling savings = 15%
 - Maintenance of portfolio diversification saves = 5%
 - Superior investment returns save = 26%
- ***Because of these efficiencies, the defined benefit plan can provide the same benefit at about half the cost of the defined contribution plan.***
 - Economies of scale dictate that it costs very little in addition to manage \$100 million dollars than it does \$2 million dollars in assets. So the more assets you have to bear, the more leverage you have to negotiate a lower cost in managing those assets.
 - In DC plans the emphasis is to put out lots and lots of options, but with lower assets, the cost of providing and managing each additional option is higher.
- ***The second inherent benefit to DB plans is that they have professional investment expertise behind them.*** This can be included in DC plans. Mr. Francis noted that to his knowledge there has never been a more extensive or intensive effort at investment education in Florida for their DC plan, but it was expensive and it was still a hard sell. In Oregon, Mr. Cleary noted that individuals do not have control over their investments in Florida's DC plan.
- ***The third inherent benefit is that DB plans payout is in the form of a lifetime annuity, which offsets the risk of exhausting the retirement benefit that is possible in a DC plan.*** Mr. Francis testified that, "It is true that an annuity can be put in as a component to a DC plan, but it is expensive. Typically very few people take advantage of an annuity in a DC plan, making it more costly. If the annuity is more costly, then fewer people want to take advantage of the option, it essentially becomes a "chicken and the egg" dilemma."
- ***Another advantage that DC plans simply cannot overcome is that in a DB plan there is a greater strength in the ability to collectively bear risk. A DB plan is essentially perpetuity, but as individuals in a DC plan we have to throttle back investments as we age.***

Major Defined Benefit Plan Concerns:

- ***DB plans guarantee a retirement, while private sector employees have DC 401(k) plans.*** Mr. Francis summarized that, "It is true that public sector employees are guaranteed a benefit, but it is only part of the equation in that typically wages in public sector jobs are lower than in the private sector. If there is a disadvantage in the labor markets because of lower wages, and you are creating another disadvantage through lowered retirement benefits...then you may be short sighted and ultimately regret that decision."

- **DB plans carry unfunded liabilities.** It is true that DC plans do not produce unfunded liabilities, but they still produce employer costs.
 - Regardless of DB or DC plan type funding and investment returns are the crucial aspects

The universal law of retirement plan finance:

$$C + I = B + E$$

$$\text{Contributions} + \text{Investment Earnings} = \text{Benefits} + \text{Expenses}$$

- *A DC plan will not eliminate or diminish the unfunded liability that has already accrued, this has been confirmed by two actuarial analyses, testimony from national experts, and presentations from both the Oregon and Florida state retirement administrators, which both offer DC hybrid plans.*
- **The ONLY way to diminish the unfunded liability is through:**
 - A strong commitment to funding the annually required contribution (ARC)
 - Investment returns
 - Reducing benefit generosity
- **Even fully funded DB and DC plans maintain employer contributions**
- **The larger the amount of investment returns the lower the employer contribution.** Oregon pays for 80% of their employer contributions through investment returns.

DC plan for Kentucky?

The key points to be considered in determining the viability of any defined contribution structure for the state retirement systems are:

1. The Inviolable Contract severely restricts the changes that can be made for existing participants.
2. The state has a challenging funding schedule that was included in the 2008 pension reform legislation. The HB 1 funding schedules are not only a legislative mandate, but are also necessary to provide benefit security for participants.
3. House Bill 1 reduces benefit accruals for future employees, while still providing adequate retirement income. The new benefit tier is the least costly of all proposals considered by the legislature and most effective in utilizing contributions to meet funding targets.
4. Defined benefit plans are true retirement systems. While defined contribution plans can be used to produce retirement benefits, they are basically savings vehicles, the third leg of the

retirement stool.

5. There are supplemental defined contribution systems that make good sense in that they reward savings or recognize specific situations. However, they do involve some cost, and should include sufficient time and education efforts to enable individuals to make informed decisions.

Supplemental Option:

Martin Bell Deputy School Superintendent (Subcommittee Member)

Secretary Jackson:

"...listening closely to the presenters that have made presentations to our task force, funding problems occur often when the state decides to change the benefit structure of the retirement systems. As I said better benefits are good for employees and future retiree's. Even when they are actuarially considered, they can add to the long term commitment of the state which may not have been anticipated in the overall state budget. Mr. Keith Brainard of NASRA shared the observation that Kentucky has been very good to its employees by improving the benefit structure from time to time. He implied that our legislators have been more forthcoming in this regard than many other states. With that thought in mind we might want to consider Georgia's approach which limits any benefit enhancements to a two year process. Below is the Georgia provision. I understand it might not fit the defined contribution study, but it might warrant consideration in the overall study. I offer it for your consideration."

"The Georgia state constitution requires that public retirement plans remain actuarially sound:

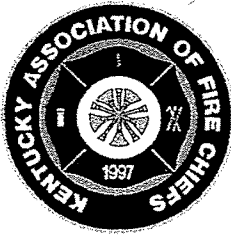
It shall be the duty of the General Assembly to enact legislation to define funding standards which will assure the actuarial soundness of any retirement or pension system supported wholly or partially from public funds and to control legislative procedures so that no bill or resolution creating or amending any such retirement or pension system shall be passed by the General Assembly without concurrent provisions for funding in accordance with the defined funding standards.[1][1]

Pursuant to this clause, Georgia statute requires that:

- **Pension legislation with a fiscal effect may be introduced only in the regular session of the first year of the term of office in the General Assembly, and passed only during the regular legislative session of the second year of the term of office of General Assembly members.[2][1]**
- **Retirement legislation with a fiscal effect may not leave its committee or be considered by the House or Senate unless its actuarial cost has been determined.[3][2]**
- **First-year funding for retirement bills with a fiscal effect must be appropriated in that year, or the bill becomes null and void.[4][3]**

- The state must maintain minimum funding standards for its pension plans and each year must contribute the pension plan's normal cost plus the amount needed to amortize the unfunded liability.[5][4]

The Employees Retirement System and Teachers' Retirement System of Georgia are among the best-funded public pension plans in the nation, with costs and benefits near the national median.[6][5]"



Kentucky Association of Fire Chiefs

c/o Anchorage Fire and EMS
1400 Evergreen Road
Anchorage, Kentucky 40223
(502) 245-6755
WEB Page: www.kychiefs.com



1st VICE PRESIDENT
Chief Danny Castle
Winchester Fire Department

PRESIDENT
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Chief Terry Lewis
Henderson Fire Department

TREASURER
Chief Bobby Bunnell
Glasgow Fire Department

SECRETARY
Chief Walter Lage
Anchorage Fire and EMS

October 27, 2008

Kentucky Public Pension Work Group
Defined Contribution Plan Subcommittee
Personnel Cabinet Secretary Nikki Jackson, Chair

Secretary Jackson and Colleagues;

Representatives of the Kentucky Fire Service have participated fully in the ongoing process of public pension reform in the Commonwealth. Beginning with the Fletcher Administration "Blue Ribbon Commission", through the 2008 regular session, the special session that resulted in House Bill 1 and culminating in the current *Kentucky Public Pension Work Group* our members have been actively engaged in this important work. Membership includes representatives of the Kentucky Association of Fire Chiefs, The Kentucky Firefighters Association, The Kentucky Professional Firefighters Association and the Kentucky Fire Commission. Our focus has been, and must remain, an advocacy for the dedicated State and local government employees who participate in the "Hazardous" portion of the Kentucky Retirement Systems. These police officers, firefighters and EMS workers place themselves at risk daily. It is important to understand that the protections offered by the disability provisions of a defined benefit pension are vital to the recruitment and retention of all of our public safety work force. Additionally, few public safety agencies participate in Social Security. It is essential that survivor protections similar to those of the Federal program be maintained by KRS. These benefits were considered so vital that the KRS successfully pursued their validation all the way to the Supreme Court of the United States ¹. This is most certainly not a trivial issue. Without exception every plan shared with the subcommittee addressed this issue in one way or another. Kentucky must not be the exception.

¹*Kentucky Retirement Systems v. EEOC*, No. 06-1037, 2008 WL 2445078 (US 6/19/08)

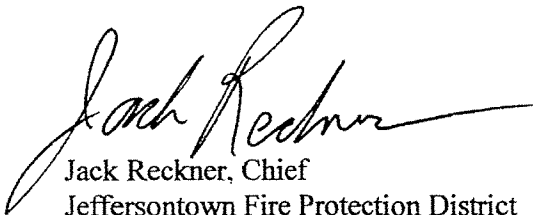
October 27, 2008

Throughout the work of this defined benefit/defined contribution subcommittee we have heard many variations of public pension formats. In every case the driving force behind a transition to a defined contribution plan was to reduce plan costs to the employer and reduce deficits in plan funding. Fire Departments, like other public safety agencies, must insure delivery of service without exceeding budgetary constraints. Reducing emergency service is not an option. An examination of the funding levels of CERS "hazardous" reveal this plan to be adequately funded at approximately 85%. This level existed prior to House Bill 1 and is predicted to improve as the effects of this legislation begin to be felt

Defined contribution pension plans cannot, by their very nature, "impute" value to an individual retirement account. Employers must, therefore, make other arrangements to protect the individual and their family should tragedy strike. These arrangements are not available without cost. These costs must be borne by the employer. We cannot ask employees to go in harm's way if we are not prepared to stand with them in their danger. It is a moral and ethical imperative that every employer of public safety workers is constantly aware of.

For the reasons stated above, therefore, both imperatives to transition to some form of a defined contribution pension are negated for hazardous employees. I simply ask that this subcommittee acknowledge this issue and include it in our final report as an important consideration for the entire *Kentucky Public Pension Workgroup*. I believe that our report would be incomplete without it and I respectfully request concurrence from the subcommittee.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Jack Reckner", with a long, sweeping horizontal line extending to the right.

Jack Reckner, Chief
Jeffersontown Fire Protection District
Kentucky Association of Fire Chiefs

National Association of State Retirement Administrators:

NASRA is a non-profit association whose members are the directors of the nation's state, territorial, and largest statewide public retirement systems. NASRA members oversee retirement systems that hold more than \$2.0 trillion in assets and that provide pension and other benefits to more than two-thirds of all state and local government employees.

Keith Brainard is research director for the National Association of State Retirement Administrators, Keith Brainard collects, prepares and distributes to NASRA members news, studies and reports pertinent to public retirement system administration and policy. NASRA members are the directors and administrators of 82 statewide public retirement systems in the United States. Combined, these systems hold assets of more than \$2 trillion in trust to fund pension and other benefits for most of the nation's 22 million working and retired employees of state and local government.

Mr. Brainard has testified on public pension issues before Congress and state legislative committees, and he speaks regularly before public pension boards of trustees and other groups. He is co-author of the "Governmental Plans Answer Book, Second Edition, author of the NASRA white paper, Myths & Misperceptions of Defined Benefit and Defined Contribution Plans," and co-author of a 2004 Pension Research Council working paper, "Profitable Prudence: The Case for Public Defined Benefit Plans." Keith also maintains the Public Fund Survey, an online compendium of public pension data sponsored jointly by NASRA and the National Council on Teacher Retirement.

Mr. Brainard previously served as manager of budget & planning for the Arizona State Retirement System and he provided fiscal research and analysis for the Texas and Arizona legislatures. He has a master's degree from the University of Texas-Austin, LBJ School of Public Affairs.

The National Institute on Retirement Security:

The National Institute on Retirement Security is a not-for-profit organization established to contribute to informed policymaking by fostering a deep understanding of the value of retirement security to employees, employers, and the economy through national research and education programs. NIRS seeks to encourage the development of public policies that enhance retirement security in America.

Located in Washington, D.C., the organization was founded in 2007 by the Council of Institutional Investors, the National Association of State Retirement Administrators, and the National Council on Teacher Retirement.

Beth Almeida is the Executive Director of the National Institute on Retirement Security. Before joining NIRS, she served as assistant director for strategic resources and as senior economist with the International Association of Machinists and Aerospace Workers (IAM) where she was instrumental in transitioning some 40,000 airline employees out of terminating or freezing pensions into the IAM's multi-employer defined benefit pension plan. Earlier in her career, Ms. Almeida led research initiatives at academic centers in Germany, France, and her home state of Massachusetts. She has authored numerous economic and pension publications and is a frequent speaker at academic and industry conferences, both in the US and abroad. Beth earned a bachelor's degree in international business from Lehigh University and a master's degree in economics from the University of Massachusetts Amherst.

William B. (Flick) Fornia is Senior Vice President, human resource consultant and actuary for Aon Consulting, specializing in public sector retirement plans. He has 29 years of actuarial and consulting experience, primarily in the areas of retiree pension and healthcare benefits. Mr. Fornia is an author and frequent speaker on all aspects of retirement programs including retiree healthcare plans, and the challenges of public sector defined contribution plans. Mr. Fornia earned a Bachelor of Arts in Mathematics at Whitman College. He is a Fellow of the Society of Actuaries, Enrolled Actuary, Member of the American Academy of Actuaries, and Fellow of the Conference of Consulting Actuaries. He currently serves on the American Academy of Actuaries Public Pensions Subcommittee, the Faculty of the Society of Actuaries Fellowship Admissions Course, and the Conference of Consulting Actuaries Committee on Professionalism.

Remarks of Keith Brainard
NASRA Research Director
to the
Kentucky Public Pension Working Group
Subcommittee on Defined Contribution
September 18, 2008

Three subject areas:

1. Overall use of DB and DC plans among state and local government and the experience plan sponsors have had with DC plans
2. Myths and misconceptions of DB and DC plans
3. NASRA position on DB and DC plans

Overall use of DB and DC plans among state and local government and the plan sponsor experience

- According to the US Bureau of Labor Statistics, 88 percent of full-time employees of state and local government have access to a traditional pension plan, or defined benefit (DB) plan, as their primary retirement benefit. Most public workers with access only to a defined contribution (DC) plan are employed by local government.
- On a statewide basis, two states provide only a DC plan to broad worker groups: Alaska and Michigan.
 - Since July 1, 2006, all new hires in Alaska, including public school teachers, state workers, and employees of political subdivisions that participate in the AK PERS, may participate only in a DC plan administered by the PERS.
 - Since March 1, 1997, all newly-hired Michigan state employees have had access only to a DC plan.
- Since 2000, Florida, South Carolina, Ohio, Montana, and Colorado have established optional DC plans for broad employee groups as the primary retirement benefit.
- In each of these states, the percentage of those electing to switch from the DB plan to the new DC option, has been relatively small (~ five percent). However, in Florida, South Carolina, and Colorado, the percentage of new hires electing to participate in the DC plan has been higher (15 to 20 percent).
- Ohio offers new hires participating in the PERS and TRS a choice between a DB plan, a DC plan, or a hybrid. From 1/1/03 to 3/1/06, a total of about two percent of new hires elected either the DC plan or the hybrid.
- According to the Government Accountability Office (GAO), approximately 22 percent of state and local government workers participate in an optional DC plan sponsored by their employer.
 - The participation rate of optional supplementary DC plans is significantly higher in cases where the employer provides a match to employee contributions.
 - Anecdotal evidence suggests that participation rates are significantly higher in optional supplementary DC plans, such as in Texas and Virginia, in which an automatic enrollment feature is in place for new hires.
- Several states, including Indiana, Ohio, Washington, Oregon, and Georgia, have established hybrid retirement plans made up of a DB plan and mandatory participation in a DC plan.
 - Indiana has maintained its hybrid structure for substantially all public employees in the state for decades.

- Contributions to the DC component in the Oregon PERS hybrid plan are invested solely in a pooled fund that is invested in the same manner as the big DB plan fund. This strategy reduced administrative costs, reduces investment risk, and provides exposure to asset classes, such as private equity and real estate, that participants may otherwise not be available to individual account holders.
- Participants in the Washington hybrid plan may direct their DC plan contributions to one of a several options, including a fund that mirrors the DB plan fund.
- Ohio and Indiana maintain mutual fund-like investment vehicles for DC (and, in the case of Ohio, hybrid also) plan participants. These vehicles differ from typical DC plans in that values are not updated daily and participants' ability to transfer assets and contributions among fund options, is limited.

* * * * *

The experience of public plan sponsors with DC plans varies widely and defies brief characterization. Also, fully and accurately assessing the experience of a switch from a DB to a DC plan requires decades of experience, which is not yet available.

Some observations of the state and local government experience with DC plans:

- Of the five percent or so of Michigan state employees who elected to switch to the DC plan in 1996-97, some have continually and unsuccessfully sought legislation permitting them to return to the DB plan.
- The employer actuarial required contribution to the closed Michigan SERS DB plan has increased from 5.6 percent of payroll (\$126.4 million) in FY 98 to 17.6 percent (\$316.3 million) in FY 07, and the plan's funding status has declined from 108.8 percent in FY 98 to 85.1 percent in FY 06. This decline is due to the employer's failure to pay the full required contribution and to investment returns below the assumed rate.
- In Alaska, a memo prepared by the commissioner of the state department that oversees retirement systems, dated March 17, 2008, stated that with respect to the impact of switching to a DC plan on employers' ability to recruit new employees, "[i]t is simply too soon to tell." The memo also indicated that employer contributions are projected to rise "dramatically."
- The actuarial required contribution to Alaska PERS increased FY 05 to FY 07 from 10.72 percent to 13.72 percent.
- Research shows that most workers, particularly new hires, pay little or no attention to their retirement benefit, and little desire exists among workers for employers to switch to a DC plan in lieu of a DB plan. The vast majority of participants who have a choice of retirement plans, do not actively make an election, but rather, default into the plan established as the default plan.
- Nebraska and West Virginia in recent years have elected to switch broad worker groups from DC to DB plans.
 - A 2002 benefits adequacy study of state and county workers in Nebraska found that participants were retiring with inadequate assets on both an absolute basis and relative to their peers in surrounding states. This study was the impetus for legislation to switch new hires to a hybrid, cash balance plan.
 - In 2005, the West Virginia Legislature reopened the DB plan for public school teachers. This plan had been closed to new hires since 1991. The WV legislature found that the DC plan was not reducing employer costs and in response to requests from participants, who contended that the plan was not providing an adequate level of retirement income.

Myths and misconceptions of DB and DC plans

1. A DB plan is more expensive than a DC plan.

The universal law of retirement plan finance:

$$C + I = B + E$$

where

$$\text{Contributions} + \text{Investment Earnings} = \text{Benefits} + \text{Expenses}$$

This law applies to defined benefit, defined contribution, and hybrid plans.

A DB plan is not necessarily more or less expensive than a DC plan, but different plan types will distribute benefits differently.

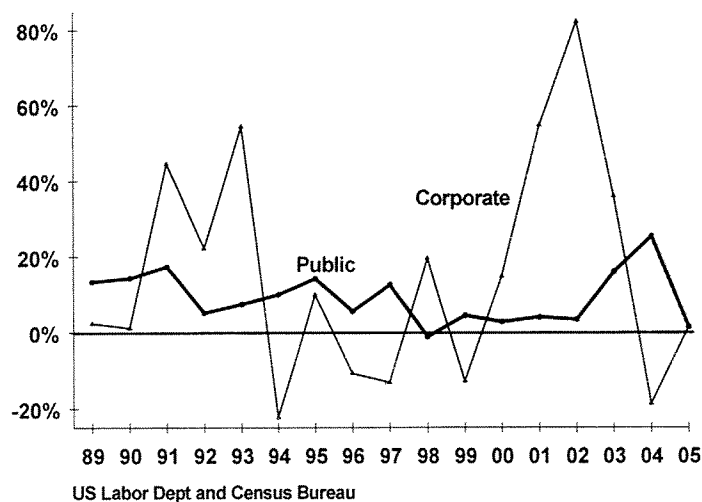
A retirement plan should be designed to meet stakeholder objectives. Typical stakeholders in a public pension plan include employers, taxpayers, participants, and bondholders, each of which has a distinct set of objectives.

2. DB plans outside the public sector have declined in use due to factors that have little or nothing to do with the public sector

DB plans have declined in use chiefly as a result of the effects of ERISA, the body of laws that govern private sector pensions. Primary causes of the decline of DB plans outside the public sector include:

- Cost volatility and uncertainty
- High cost
- Foreign competition

The chart below plots the annual change over the prior year in total pension costs for public and corporate pension plans. As the chart shows, public pension costs are more stable and predictable than corporate plans. This is due chiefly to differences in the way required contributions are calculated.



Pensions sponsored by state and local government are not subject to federal regulations that account for much of this volatility, nor are public pension plan sponsors subject to foreign competition.

3. Closing an existing DB plan to new members does not reduce that plan's unfunded liabilities or cost.

In fact, closing a DB plan usually will increase costs, at least in the near term, resulting from a diminishing payroll base and the loss of new participants available to help fund the cost of the unfunded liability.

4. Public pensions have developed a wide range of portability features.

Such features include opportunities to purchase or transfer service credit, shorter vesting periods and provisions that permit participants to qualify for a benefit without spending a significant portion of their career with the plan sponsor.

This helps to illustrate the point that a plan should be designed with the ends in mind based on stakeholder objectives.

5. Consideration of plan costs should distinguish between pension and retiree health care costs.

These are fundamentally different benefits types that should be considered and evaluated separately.

6. Although some DC plan participants will outperform the market, most will not.

Few professional investors outperform broad market indices, and even fewer amateurs do. Studies consistently show that DB plan investment returns outperform those of DC plans.

Pooling assets promotes higher investment returns through lower costs and professional management, and enables participants to share equally in those returns. Asset pooling can reduce or eliminate certain risks, i.e., pooling reduces longevity risk, which is the risk that a participant will outlive her assets. Pooling also reduces investment risk, i.e., the risk that participants will underperform market indices.

**Prepared by Keith Brainard
Research Director
National Association of State Retirement Administrators
512-868-2774
keithb@nasra.org**

NASRA RESOLUTION 2003-08 - Support for Defined Benefit Plans

WHEREAS, efforts are underway to strongly influence some state and local governments to offer new or current employees alternative defined contribution retirement plans in lieu of the current state and local government employee retirement system; and,

WHEREAS, parties behind such efforts are often in a position to gain financially from the alternative retirement arrangement, and often forward incomplete and/or biased information to policy makers and employees to further their cause; and,

WHEREAS, state and local government employees traditionally participate in defined benefit plans that provide a guaranteed pension benefit based on years of service and compensation and,

WHEREAS, most state and local government employees already have the option to participate in a supplementary defined contribution plan, such as a Section 457 deferred compensation plan, a Section 403(b) tax sheltered plan, or a Section 401(k) plan, in addition to their defined benefit plan; and,

WHEREAS, many state and local government employers have determined that a defined benefit program is the best means to attract and retain high quality employees by providing stable income replacement in retirement for long-term workers; and,

WHEREAS, many state and local government employers have found defined benefit programs to be the best means for providing ancillary casualty benefits related to disability and death before retirement; and,

WHEREAS, many state and local governments have ascertained that the pooling of pension fund assets in defined benefit programs will provide an optimum mix of growth potential and risk in investments, while providing lower administrative expenses than will typically be the case in counterpart defined contribution plans; and,

WHEREAS, there is already considerable portability within state retirement plans and state and local governments are continuing to expand the features and options within defined benefit programs, including changes to address the issue of short service employees and to enhance portability in order to best accommodate the make-up of their workforce;

NOW THEREFORE BE IT RESOLVED, that the National Association of State Retirement Administrators supports the prevailing system of retirement benefits in the public sector, namely, a defined benefit program to provide a guaranteed benefit and a voluntary defined contribution plan to serve as a means for employees to supplement their retirement savings;

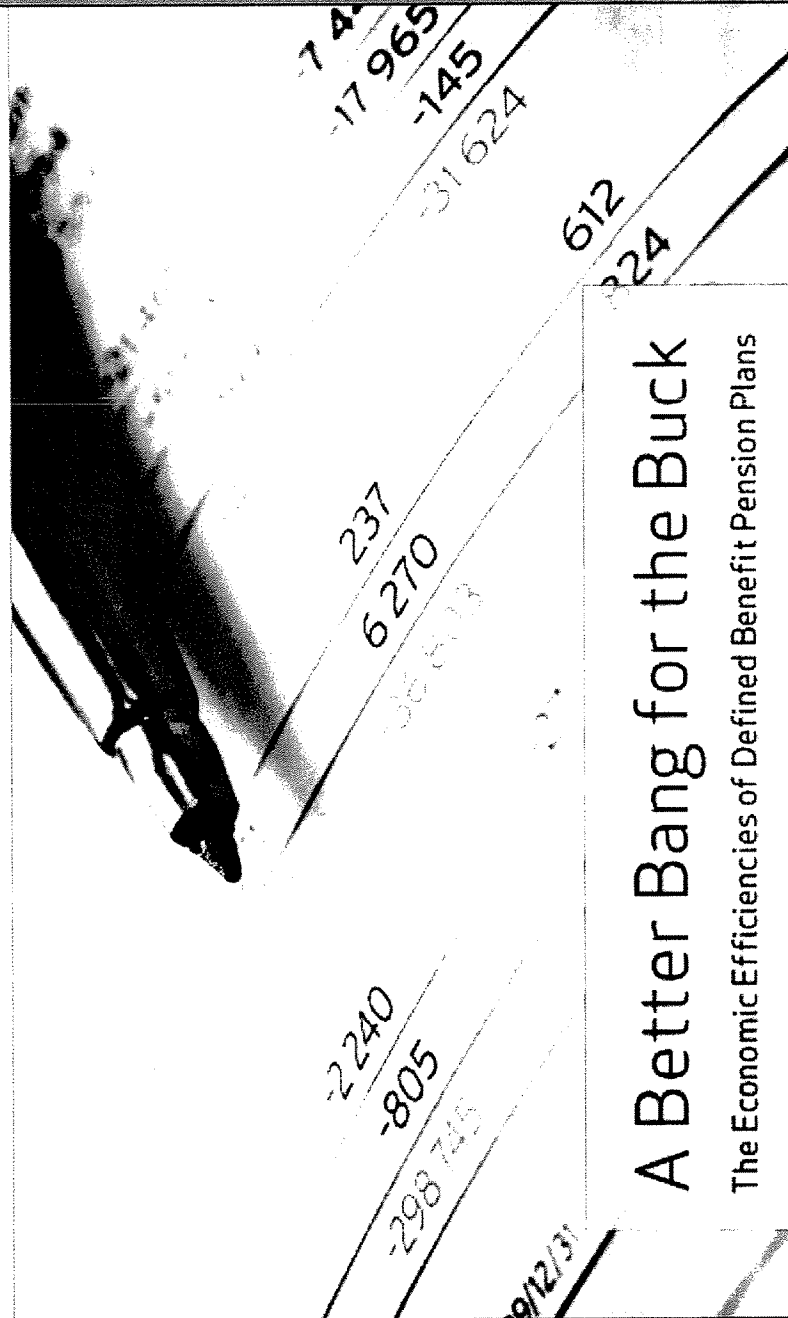
AND, BE IT FURTHER RESOLVED, that the National Association of State Retirement Administrators supports progressive changes within this prevailing system of retirement benefits in the public sector, either within the defined benefit plan or through supplementary plans, that accommodate a changing workforce and better provide many of the features advanced by defined contribution advocates.

Amended Resolution 1998-02
Adopted August 6, 2003



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A Better Bang for the Buck

The Economic Efficiencies of Defined Benefit Pension Plans

by Beth Almeida and William B. Fornia, FSA

August 2008

You've Seen the Headlines ...



**GM Will Freeze Salaried Pensions,
Shift to 401(k)s**

"move will save the struggling
automaker \$420 million in 2007."

April 10, 2007

The Washington Post

**IBM Adds Its Name to the List of Firms
Freezing Pensions**

"cut worldwide retirement-related expenses
by \$450 million to \$500 million this year."

January 6, 2006

The New York Times

**Verizon to Halt Pension
Outlay for Managers**

"company hopes to save about
\$3 billion over the next decade"

December 6, 2005



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But the Headlines Don't Tell the Whole Story

- Leave readers with the false impression that DC plans are somehow inherently less expensive than DB plans
- But benefit generosity largely drives retirement plan cost
- Naturally, less generous benefits will cost less



Separating Benefit Generosity from Economic Efficiency

- “The level of contributions from both employers and employees into DC schemes is lower than it is into DB schemes. Whatever the arguments about the merits of [DC plans], if you put less money in, you will get less money out.
- “To make the shortfall worse, the costs of running DC schemes are, on average, higher,
- “and finally, DC pensions call for a degree of decision-making that their members are often ill-equipped to undertake.”

The Economist, June 12, 2008



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In Other Words ...

- Benefit generosity is a different question than the economic efficiency of a retirement system
- A wide body of research indicates that DB plans contain “built-in” efficiencies that DC plans do not
- Such findings suggest that a DB plan will be able to deliver any given level of retirement income at a lower cost than a DC plan



Research Question: Why We Did this Study

- Evaluate claims that “DC plans save money”
- How do the costs of delivering retirement benefits through each type of plan compare?
 - Apples-to-apples comparison
 - Calculate the cost to deliver the same level of retirement benefits
 - DB plan
 - DC plan



Results:

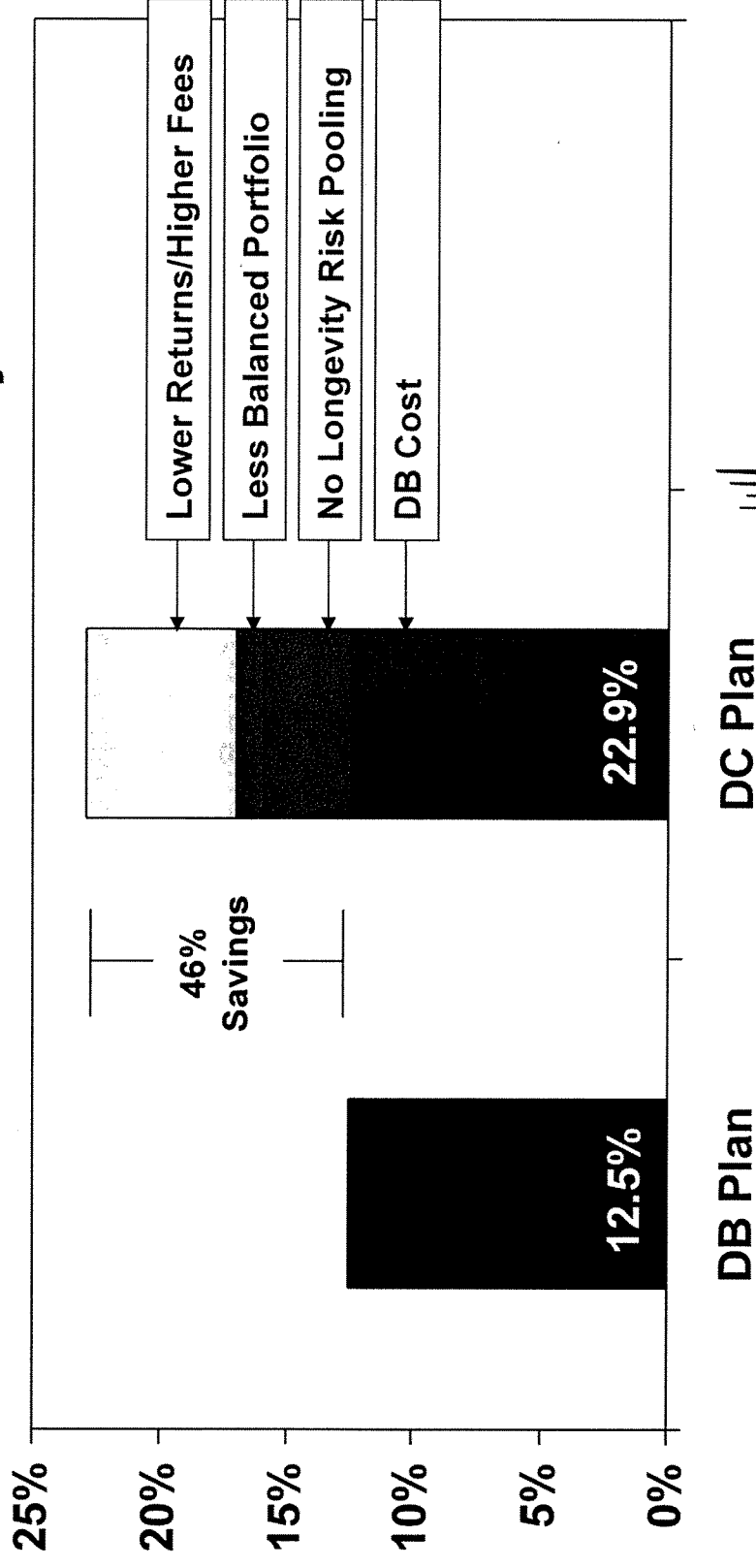
What We Found

- The DB approach saves money compared to the DC approach. Three reasons ...
 1. DB pension plans pool “longevity risks”
 2. DB pension plans can maintain a better diversified portfolio because, unlike individuals, they do not age
 3. DB pension plans achieve better investment returns because of professional asset management and lower fees



DB Plan Can Deliver Same Benefit at About Half the Cost of DC Plan

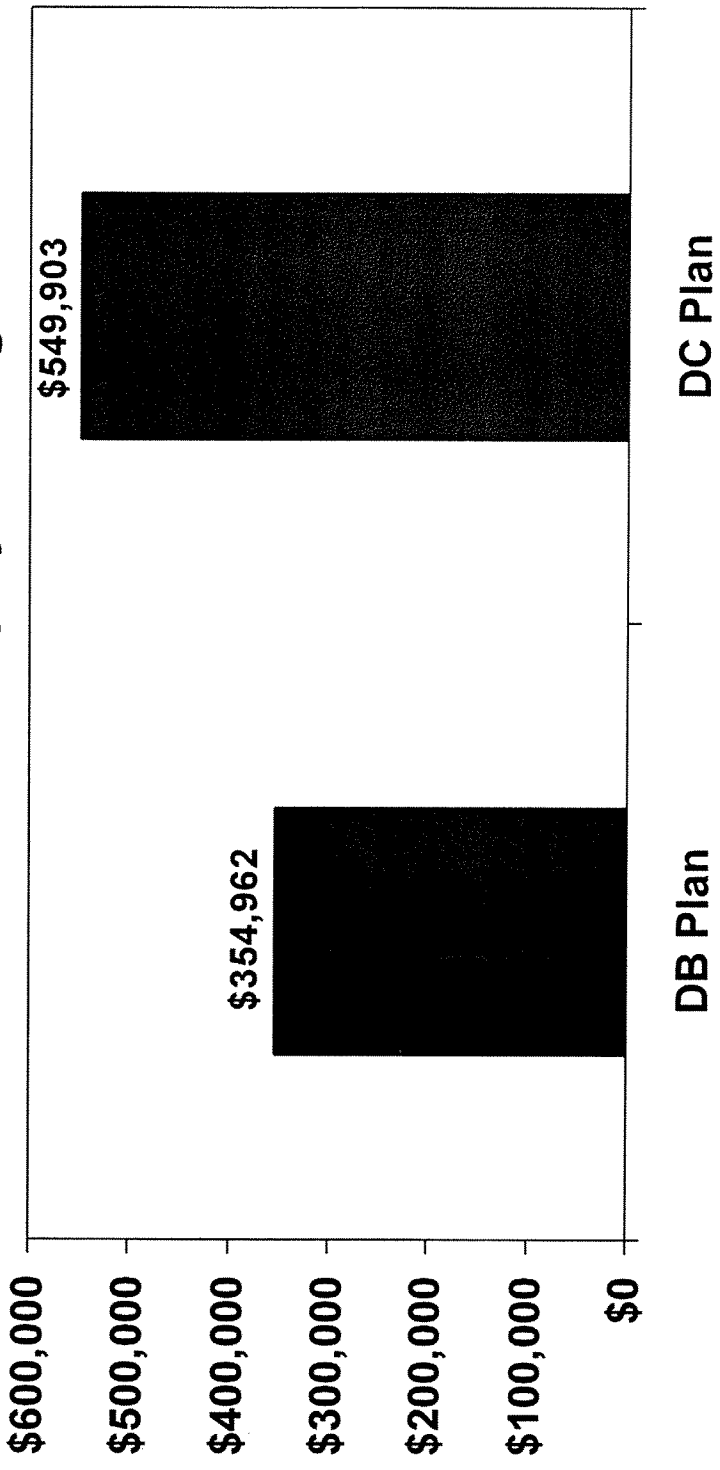
Cost of DB and DC Plan as % of Payroll



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DB Plan Can Do More with Less

Required Assets per Employee at Age 62



Methodology: What We Did

- We model a population of 1,000 female teachers who work for 30 years - their final salary is \$50,000
- We define a “target” retirement benefit - about \$2,200/month – at age 62, which is adjusted for inflation
- We calculate the cost to fund this benefit through a DB plan structure, then through a DC plan structure

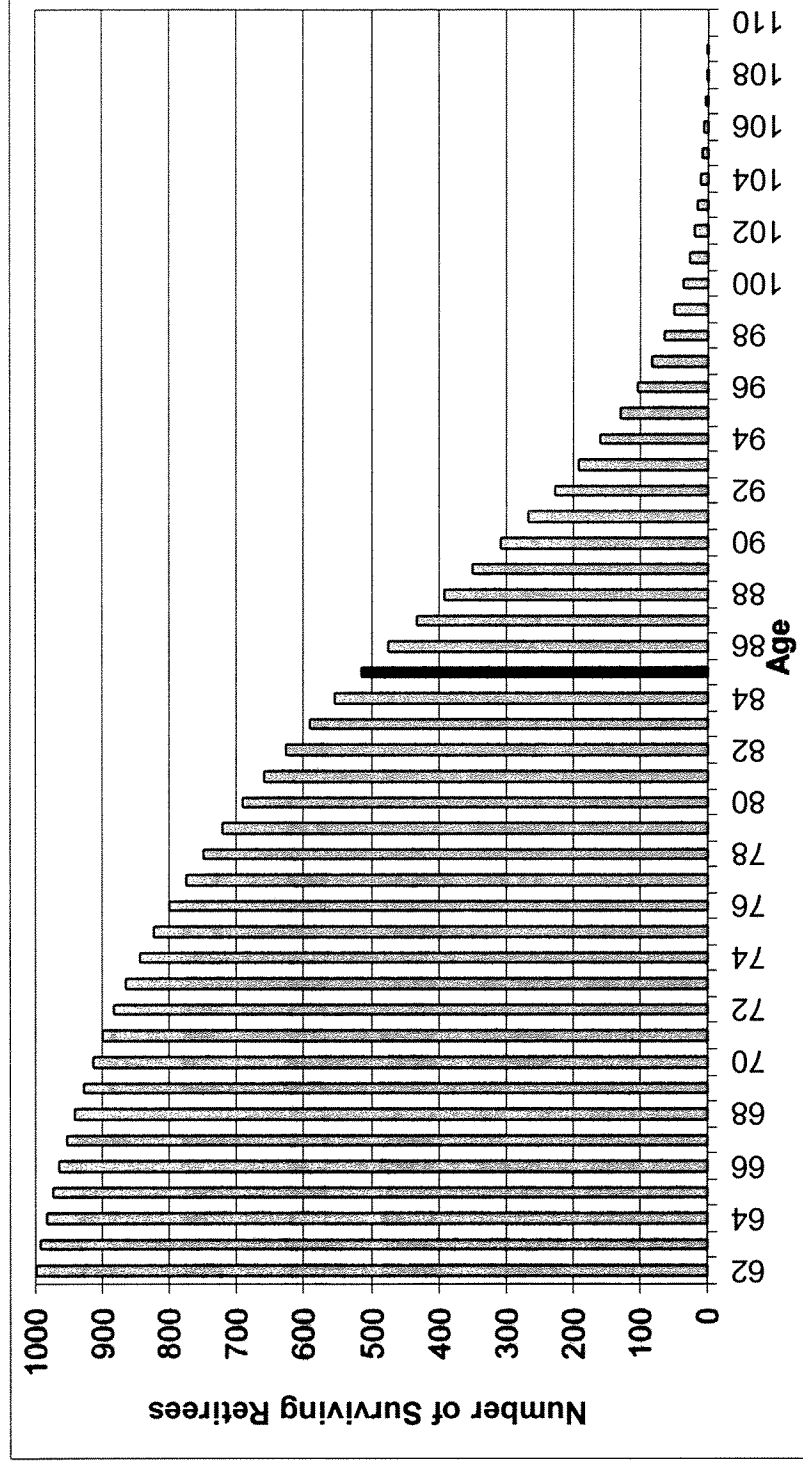


DB Plan Payout for 1,000 Retirees

- Consider 1,000 retiring schoolteachers
- Retiring at age 62
- This illustration assumes they are female
- Some will live to over 100
- Some will die at 62
- On average they will live to 85

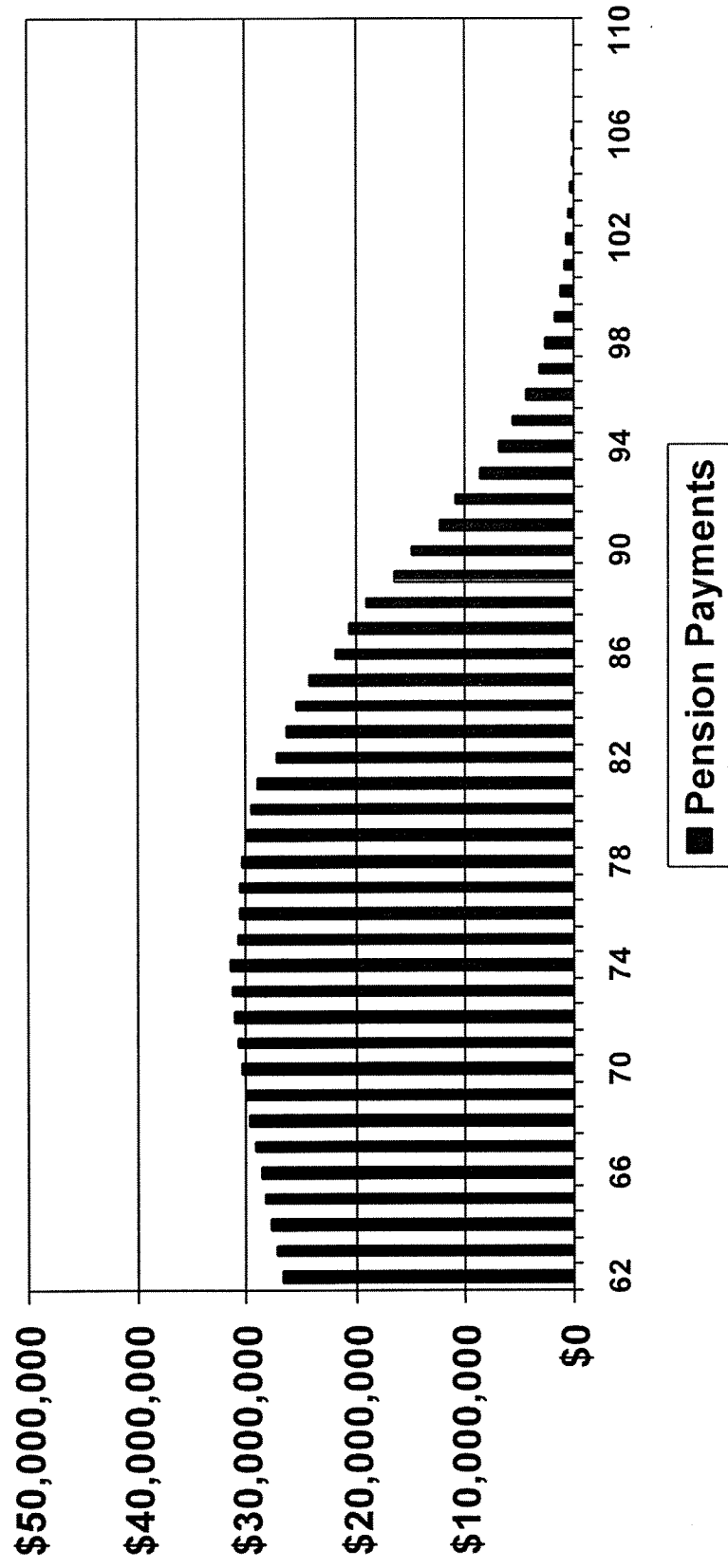


Longevity of 1,000 Female Retirees



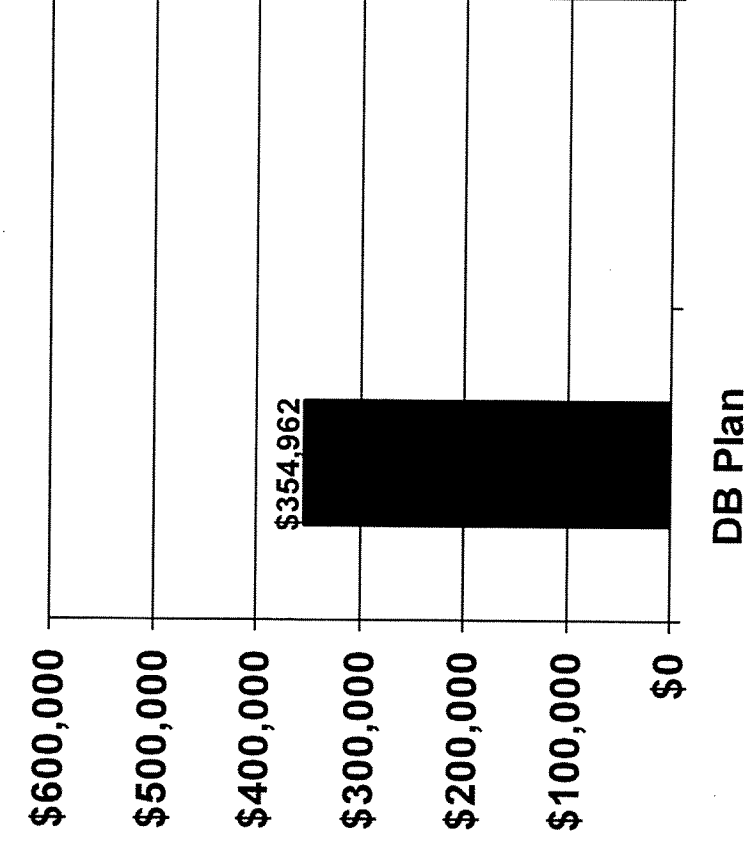
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Annual Retirement Payments for 1,000 Teachers in DB Plan



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Amount needed at Age 62 to Fund Target Retirement Benefit



- The DB plan must have about \$355,000 set aside for each person in the plan at age 62
- In order to fund this amount, contributions must be 12.5% of payroll each year

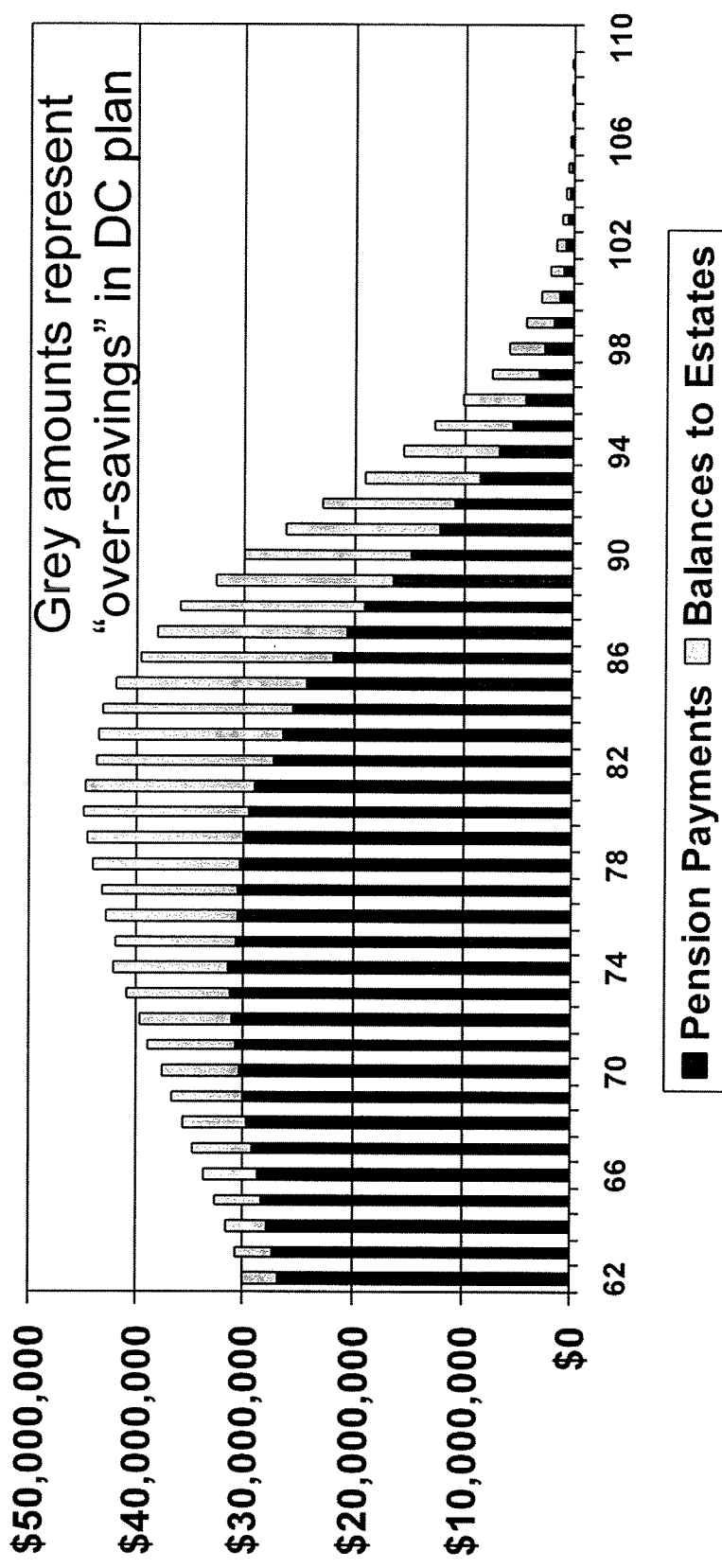
DC Plan Could Target the Same Payments ...

- But individuals don't know how long they'd live
- Will want to save enough so they don't run out of money if they live longer than average
- Reasonable to target 90th percentile life expectancy (for women age 62, this is age 97)
- This leads to the “oversaving dilemma” ...

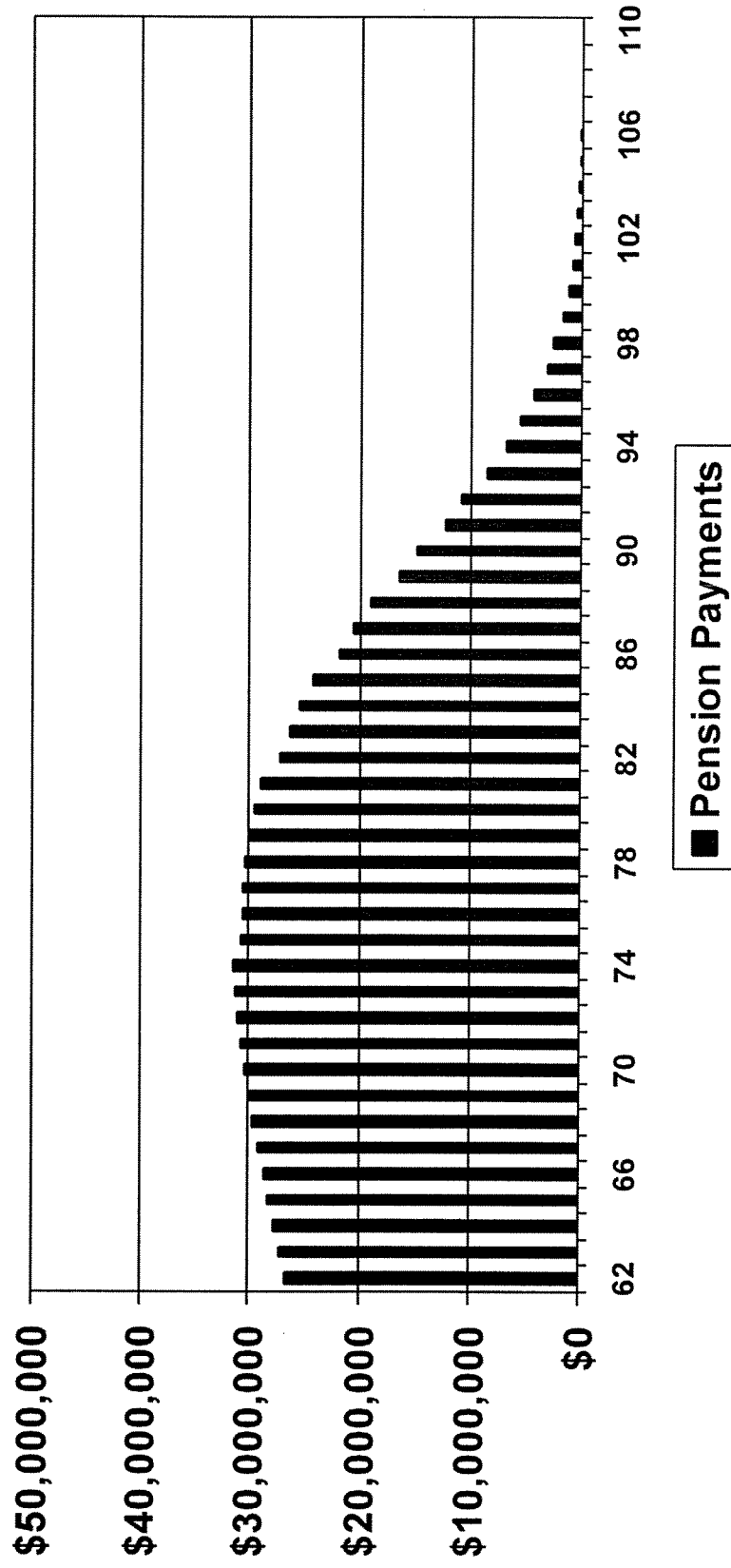


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Under the DC Plan 24% of Assets Are Not Used for Retirement



Annual Retirement Payments for 1,000 Teachers in DB Plan



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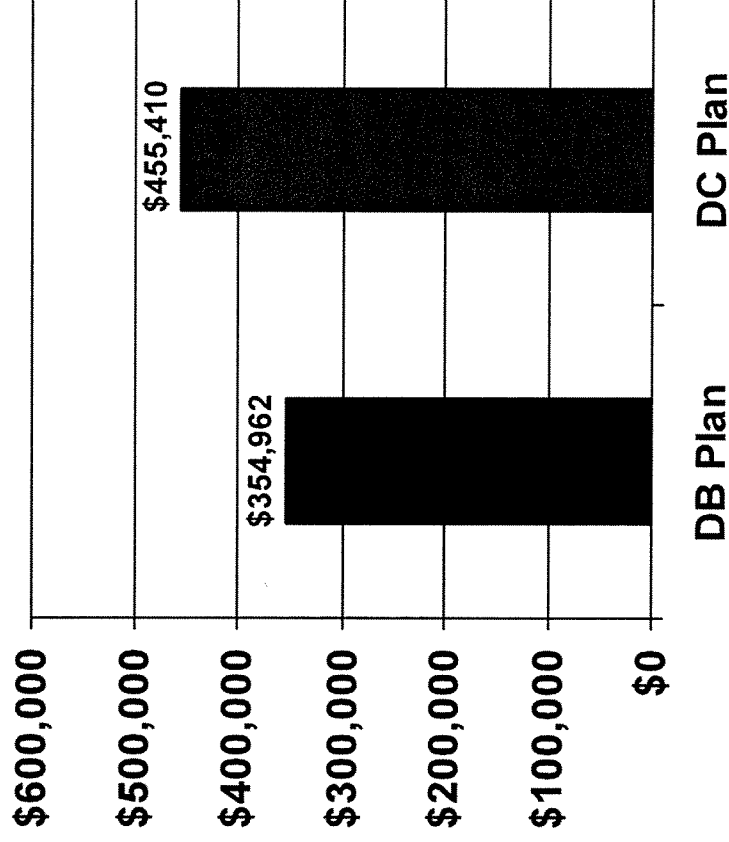
1st Strength of DB Plans

Longevity Risk Pooling

- Because they cover large numbers of retirees, DB plans can pay out over the *average* life expectancy, not *maximum* life expectancy
- An individual under a DC plan will want to avoid the risk of running out of money if they live a long life
- Because individuals must plan for a maximum life expectancy, much more money must be accumulated in a DC plan, compared to a DB plan



Lack of Longevity Risk Pooling in DC Plans Drives Up Cost



- Individuals must self-insure longevity risks (“over-save”) thus, the DC plan needs to set aside at least \$455,000 for each retiree at age 62
- In order to fund this amount, contributions must be **16.0%** of payroll

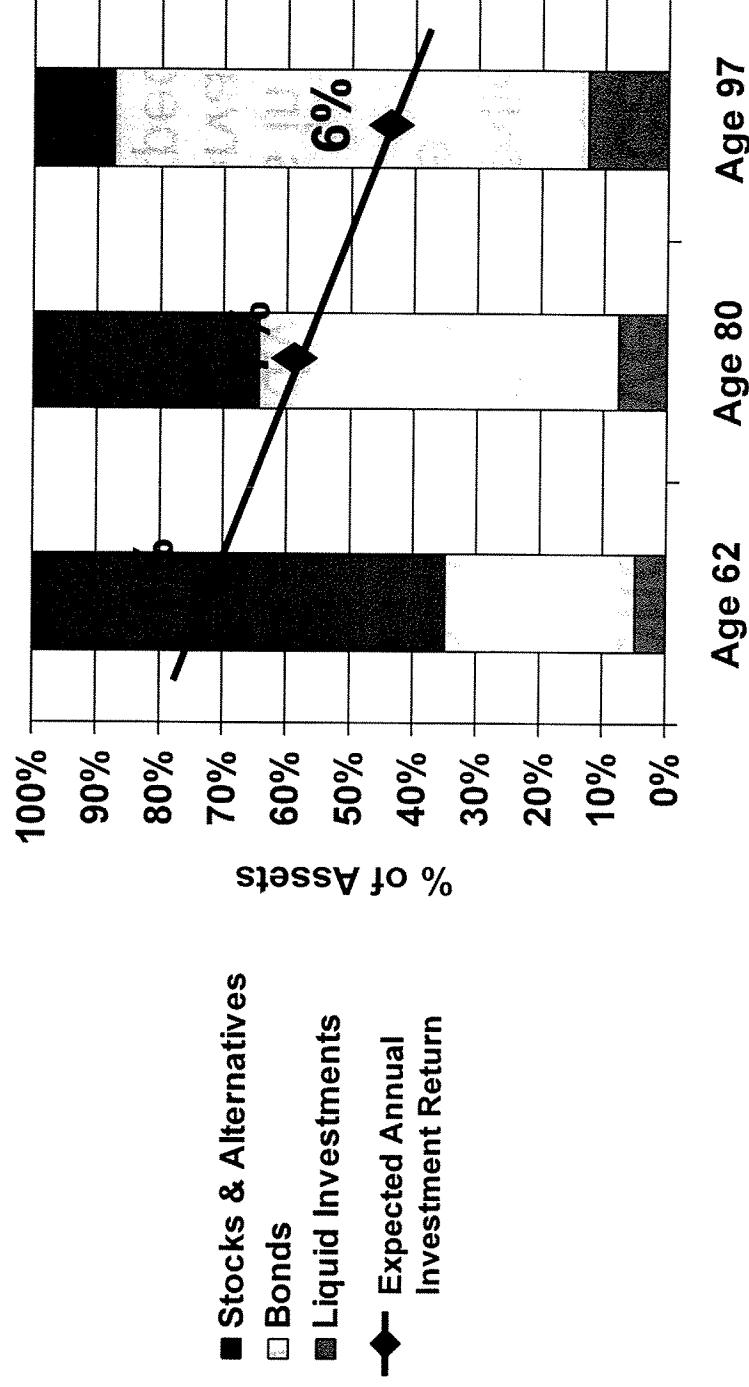


Key Differences in How Investing Occurs in DB Plans vs DC Plans

- In DB plans, a common trust is established and assets are invested by professionals
- In DC plans, individuals typically direct their own investments
 - Age-related move to “safer,” but lower-yielding investments as individuals age
 - Individuals generally achieve lower returns as compared with professionals



As Individuals Shift DC Portfolio Allocation, Expected Return Reduced



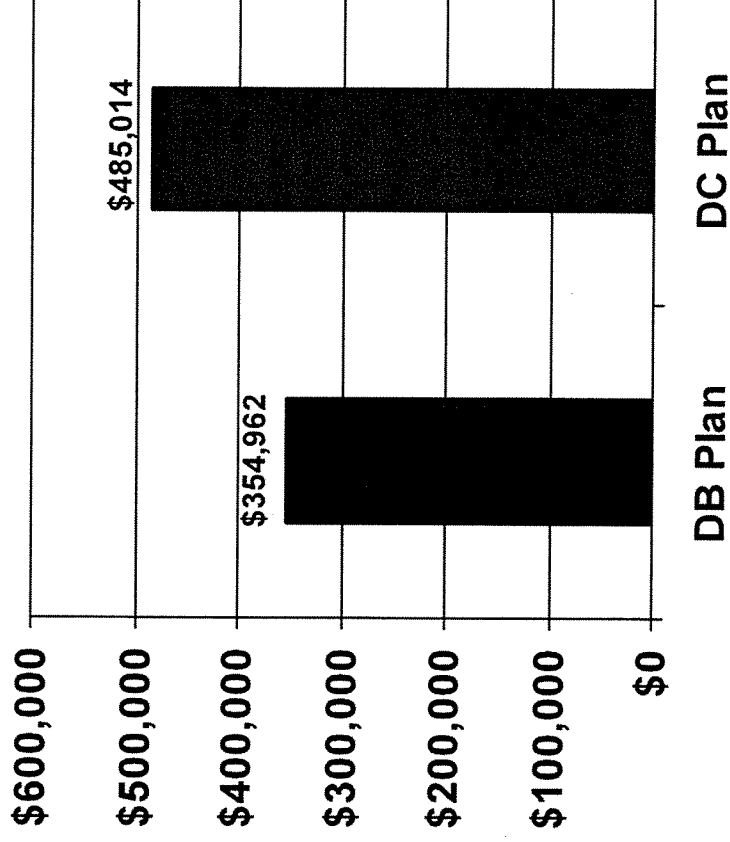
2nd Strength of DB Pension Plans

More Effective Portfolio Diversification

- DB plans can maintain a well diversified portfolio over time – unlike individuals, DB plans do not age
- To protect against market shocks, individuals in DC plans are advised to shift toward more conservative investments as they age, sacrificing some expected return
- Lower returns mean more money must be contributed to deliver the same level of benefits



Age-Driven Shift to a Less Diversified Portfolio in DC Plans Drives Up Cost



- The DC plan now must have at least \$485,000 set aside for each retiree at age 62
- In order to fund this amount, contributions must be **17.0%** of payroll

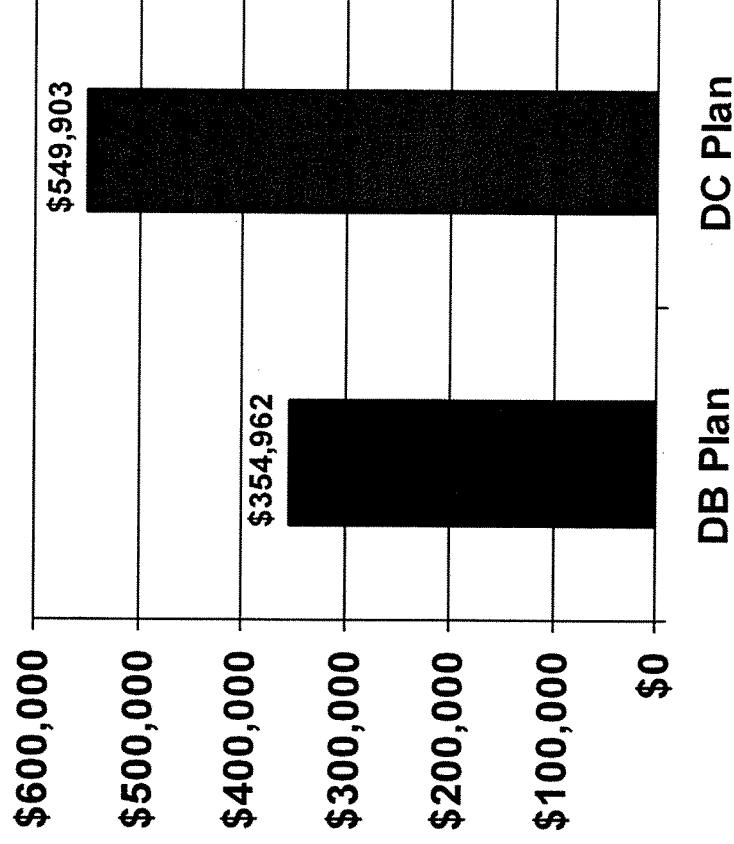
3rd Strength of DB Pension Plans

Pooled, Professionally-Managed Assets

- Assets in DB plans are professionally managed. Despite their best efforts, individuals tend to underperform when it comes to investing in DC plans
- Pooled investments in DB plans can lower expenses
 - Large group pricing negotiation
 - Avoid expenses of individual recordkeeping, investment education, investment transactions
- Studies generally have shown that DB plan returns outperform DC plans by at least 1% annually



Lower Returns/Higher Fees in DC Plans Drive Up Cost

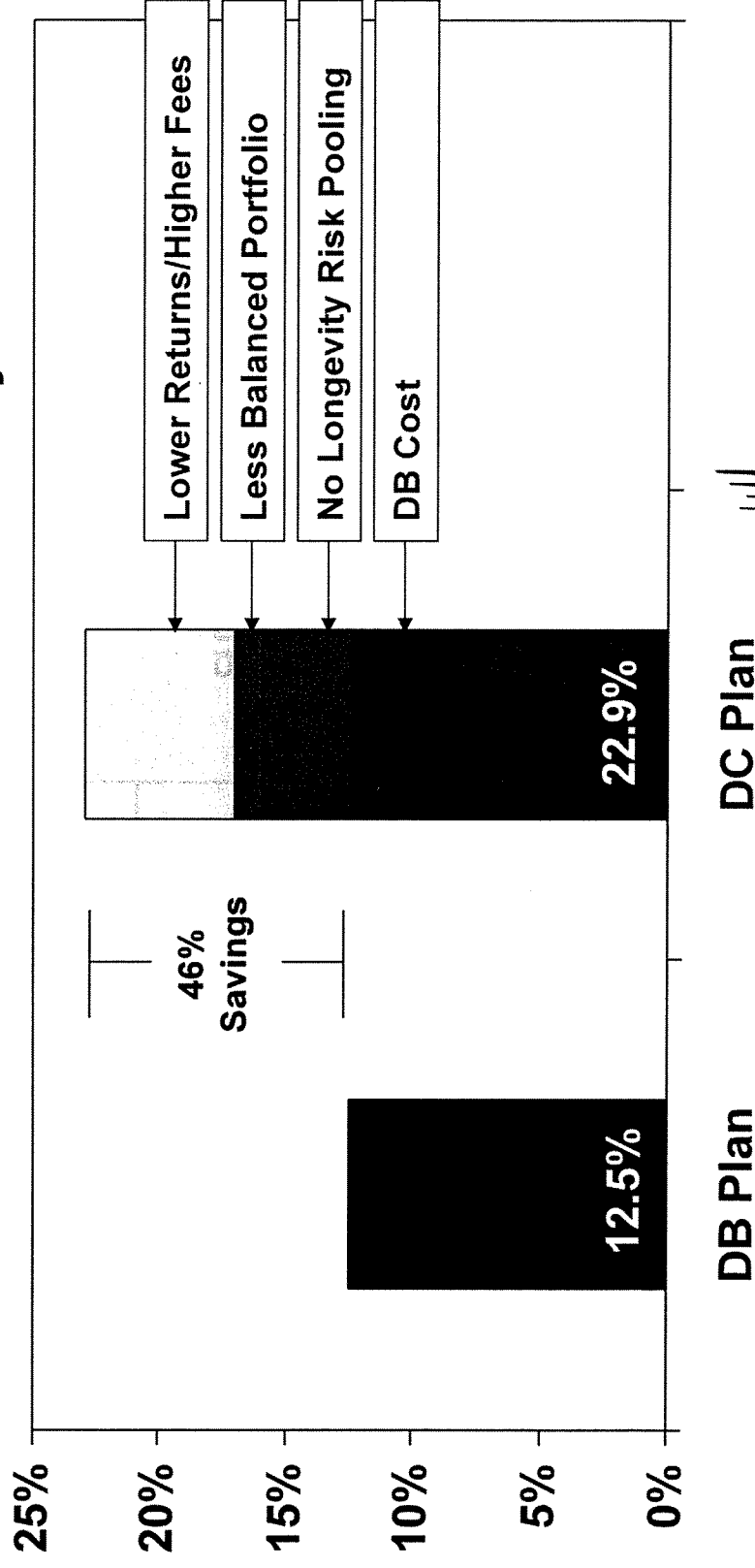


- The DC plan now must have almost \$550,000 set aside for each retiree at age 62
- In order to fund this amount, contributions must be **22.9%** of payroll



Cost of DB Plan is Almost Half the Cost of DC Plan

Cost of DB and DC Plan as % of Payroll



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Breakdown of DB Cost Savings

All-in costs savings in DB plans 46%

- 1. Longevity risk pooling saves 15%
- 2. Maintenance of portfolio diversification saves ... 5%
- 3. Superior investment returns save 26%

Because of these efficiencies, the DB plan can provide the same benefit at about half the cost of the DC plan



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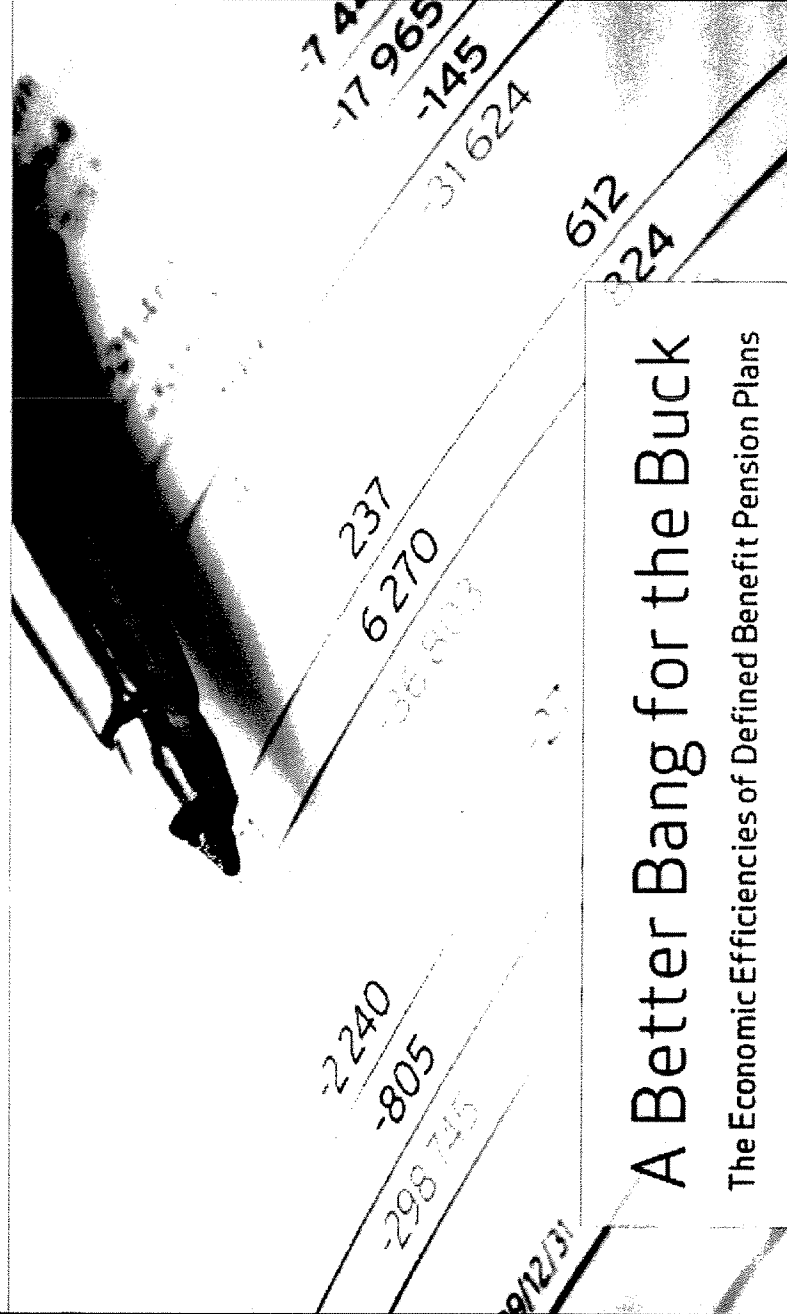
Conclusions

- It's important to separate the question of benefit generosity from the issue of retirement system efficiency
- DB plans have built-in economic efficiencies – provide a “better bang for the buck” for taxpayers/employees
- Decision makers should continue to carefully evaluate claims that “DC plans will save money”



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A Better Bang for the Buck

The Economic Efficiencies of Defined Benefit Pension Plans

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AUGUST 4, 2008

When 401(k) Investing Goes Bad

Teachers in West Virginia offer a valuable lesson for what not to do

By JENNIFER LEVITZ

Seventeen years ago, West Virginia school employees joined millions of workers nationwide in a shift from a pension plan that guaranteed a monthly check, to a retirement-savings plan that would make the teachers, bus drivers, custodians and other staff responsible for their own investment accounts.

"It was horrible," says Judy Hale, president of the West Virginia Federation of Teachers union. Most felt poorly informed, and they invested too conservatively, putting the largest sums of money into a fixed-rate annuity, a safe but low-yielding option that typically is inadequate for building a nest egg.

As employees began to retire, most balances were pitifully small. So on July 1, after a vote authorized by the state legislature, 14,871 school employees, or 78%, switched to the old-fashioned pension plan.

After the vote, teachers were "jumping up and down and crying in the halls," Ms. Hale says.

The school employees put their mistakes behind them, but their experience stands as a cautionary tale for employers and employees across the country. As large numbers of workers are starting to retire with 401(k) or 401(k)-like plans to support them, what happened in West Virginia is a window into exactly how things can fall apart for workers, and it serves as a wake-up call for figuring out how to avoid having plans go as badly off track as this one did.

Many workers with retirement accounts have built nest eggs far bigger than they ever imagined possible. But unknowledgeable ones often are far short of comfortable retirements -- and they don't have the option the West Virginia teachers did of appealing to state legislators to get them out of their investing mistakes. On top of all this is the havoc that the current bear market may be wreaking on older workers' accounts if they are too aggressively invested in stocks.

Around the country, a few big employers have ditched retirement-savings plans

and returned to traditional pensions. The pace of big companies abandoning pension plans appears to be slowing as well. In 2007, 54 of the 100 largest U.S. employers offered an old-fashioned pension plan to new workers, down from 58 in 2006, according to Watson Wyatt Worldwide, a management-consulting firm in Arlington, Va. That 7% decline compares with a 14% drop as recently as 2005.

But there is little question that retirement-savings plans, which have proliferated since the 1980s, are here to stay. Only 21% of full-time employees had an old-fashioned pension plan in 2007, down from 54% in 2004, according to Transamerica Center for Retirement Studies, a nonprofit corporation funded by Aegon NV's Transamerica Life Insurance Co.

"A 401(k) gets employees to the right place if they're using it right," says Pam Hess, director of retirement research at Hewitt Associates a Lincolnshire, Ill., consulting firm, adding: "We still have work to do." Improvements ushered in by the 2006 Pension Protection Act are still being put into place by many employers, such as automatically enrolling new workers and providing investment advice. More employers also are offering account-management services, annual rebalancing of accounts to keep investments in line with designated asset-allocation targets and target-date funds that adjust their holdings from an aggressive to a conservative mix as workers age.

Challenges clearly remain: At the end of 2007, the median 401(k) account balance for people age 60 and above was \$34,420, according to Hewitt, meaning half of the group had balances even lower. To be sure, some retirees have other savings, including money rolled into individual retirement accounts from 401(k)s at prior employers.

But studies are starting to document that traditional pension plans, which typically are overseen by professional money managers, outperform programs in which workers control an investment account, like 401(k)s. Between 1995 and 2006, "defined benefit" pension plans, so-named because they give retirees a specified monthly benefit, outperformed defined-contribution plans, in which the employer makes a specified contribution to the worker's account, by about one percentage point a year, for a cumulative dollar difference of nearly 14%, according to a June report by Watson Wyatt.

A Church's Change

The United Methodist Church last year moved its 36,000 clergy and lay employees back to a traditional pension, realizing that "with ministers, really their talents are in creative areas, and often not in investment areas," says Ron Gebhardtsbauer, an actuary in University Park, Pa., and a former trustee with the church's pension board. Barbara Boigegrain, general secretary of the church's Evanston, Ill.-based pension board, adds that the church didn't believe it was fair

that its employees "were at the whim of the markets." Those who retired in the bull market of 1999, for instance, generally had a better nest egg than those who retired as a three-year bear market ended in 2002. "We care desperately that they have an adequate income in retirement -- and income that they cannot outlive," she says.

Beginning in the early 1970s, school employees in West Virginia were enrolled in an old-fashioned plan, with benefits calculated by a formula that took into account compensation and years of service. But after the pension plan faced funding shortfalls, it was closed to new enrollments as of June 30, 1991. The defined-contribution plan was set up to take care of new hires, and existing employees were given the option of sticking with the old plan or transferring into the new one.

Under the defined-contribution plan, the state contributes 7.5% of each employee's annual eligible gross pay, according to the Web site of the state's retirement board. Employees have flexibility in terms of their contributions: While the state requires those in the pension plan to contribute 6% of pay into the state fund, those in the savings plan can contribute as little as 4.5% -- a selling point to those who want greater take-home pay.

Of course, a smaller contribution has the effect of holding down the account balance. As for the state's 7.5% contribution, it is more generous than in the average private-sector 401(k), where the most common fixed match is 50 cents per dollar of an employee's contribution up to the first 6%, according to the Profit Sharing/401k Council of America, a nonprofit organization in Chicago. In contrast, to fund the defined-benefit plan for the teachers, the state of West Virginia aims to contribute 15% of annual gross pay for people hired before July 2005 and 7.5% for those hired after. In general, a typical payout in the West Virginia pension plan is an amount equal to 2% of an employee's peak salary multiplied by years of service.

Sales at Lunch

The West Virginia plan initially offered stock and bond mutual funds, a money-market fund, and an annuity, in this case from Variable Annuity Life Insurance Co., or Valic, a unit of American International Group Inc. In addition to the Valic annuity, current offerings include funds from Capital Group Cos.' American Funds unit, Federated Investors Inc., Fidelity Investments and Franklin Resources Inc.

From the start, most employees favored the annuity. Some say they were swayed by Valic's sales force, which included former educators and school employees who went into the schools during the workday to talk about the option. "These people came during your lunch or during your planning period basically to sell

the program," says Debra Elmore, a third-grade teacher in Ansted, W.Va.

Ms. Elmore acknowledges knowing little about investing. "Oh, Lord no," she says. "I had no idea." She set up her account so that 85% of her contributions would go into the fixed-rate annuity. "I just thought, 'Well, these are safe. Let's stay there.' "

AIG spokesman John Pluhowski says the insurance company hires former school employees to sell its products to schools "because the education market is important to us; educators know the needs and concerns of educators." He says the representatives were "not authorized or directed to give investment advice; they were only authorized to sell a fixed-annuity contract."

Anne Lambright, executive director of the state's retirement board, says that the board offered "some general education" about investing to employees, but that "not everyone took advantage of it." She acknowledges that advice was limited and that much of the information employees received was probably from the companies selling the products. "I'm not sure how much information they got in terms of comparison between products or stocks and bonds," she says.

At one point, about two-thirds of all assets in the plan were invested in the fixed-rate annuity, according to the board's annual reports. For the first two years, the annuity offered an annual return of 8.5%, but then it dropped to 4.5%, according to a state official. Mr. Pluhowski says the 4.5% is the guaranteed minimum return, while the higher percentage was based on then-market conditions.

By 2005, complaints from employees and the union about low balances in the defined-contribution plan had mounted. State officials closed the plan to new participants and reopened the pension plan to new hires. The following year, school employees voted on whether to end the defined-contribution plan, but a state court later deemed the vote unconstitutional because those satisfied with the plan would have been forced to return to the old-fashioned pension plan. This spring's election was couched differently: Workers voluntarily could elect to transfer their account into the old pension plan, provided that at least 65% of current employees wanted the transfers to be permitted.

The threshold easily was cleared -- in part because as of April 30 the average account balance in the defined-contribution plan was \$41,478, and of the 1,767 employees over the age of 60, only 105 had balances of more than \$100,000. "Our members were going to run out of money five or six years into retirement," says Ms. Hale of the teachers union.

Some retirement experts say another problem that surfaces in 401(k) plans is the "red-truck syndrome": Plan participants use some of their nest egg at retirement

to buy something they always dreamed of having. Teresa Ghilarducci, an economist at the New School for Social Research in New York, says many workers take their 401(k) in a lump sum and have difficulty making it last. She says the West Virginia case "shows the nation what is wrong with everyone's 401(k)," including a lack of investment knowledge and fiscal discipline.

State Investigation

Meanwhile, West Virginia's state auditor and attorney general have announced that they are looking into whether Valic made misrepresentations to induce employees to invest in its annuity, with the attorney general appointing four prominent state lawyers as special assistant attorneys general to help with the investigation. Also, Valic and AIG are co-defendants in a civil lawsuit seeking class-action status in county court in Moundsville, W.Va. The lead plaintiff, a teacher, accuses Valic of fraud, alleging the company misled employees to get them to invest in a "commission-driven" product.

AIG denies wrongdoing. Mr. Pluhowski declined to specifically discuss the lawsuit or the current state investigation, but says, "We are confident we met the obligations we were contracted to provide." He declined to say how much employees were paid for sales of the annuities, but says that "no plan contributions were used to pay commissions." West Virginia's insurance commissioner investigated Valic's sales practices in 2002 and cleared the company, saying it had found no misrepresentations by Valic agents.

Teachers returning to the pension plan will receive reduced benefits to reflect that they've contributed less than other state workers over the years. But they will have the option to make catch-up contributions to "buy back" the full benefits.

Ms. Elmore, 46, says she realized her disappointment in the defined-contribution plan when she received a letter from the state's retirement board in April projecting that, at age 60, she would have a big-enough nest egg to provide her with \$1,571 per month for her life. By contrast, the letter projected, if she voted to go back to the defined-benefit plan, she would receive a projected monthly payment between \$2,656 and as much as \$3,050.

"I jumped on it," she says. "I was just worried."

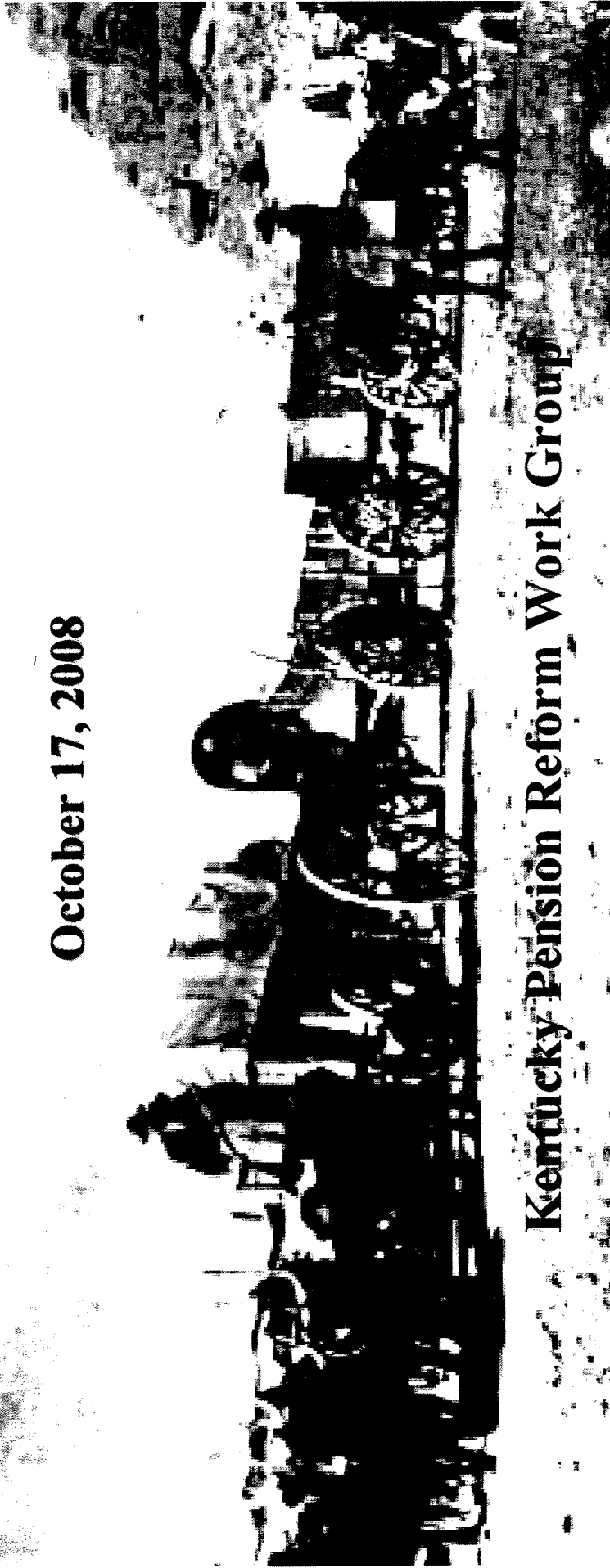
—Ms. Levitz is a staff reporter in Boston for The Wall Street Journal.

Write to Jennifer Levitz at jennifer.levitz@wsj.com

Oregon's Trail to Retirement System Reform

**Paul R. Cleary, Executive Director
Oregon Public Employees Retirement System**

October 17, 2008



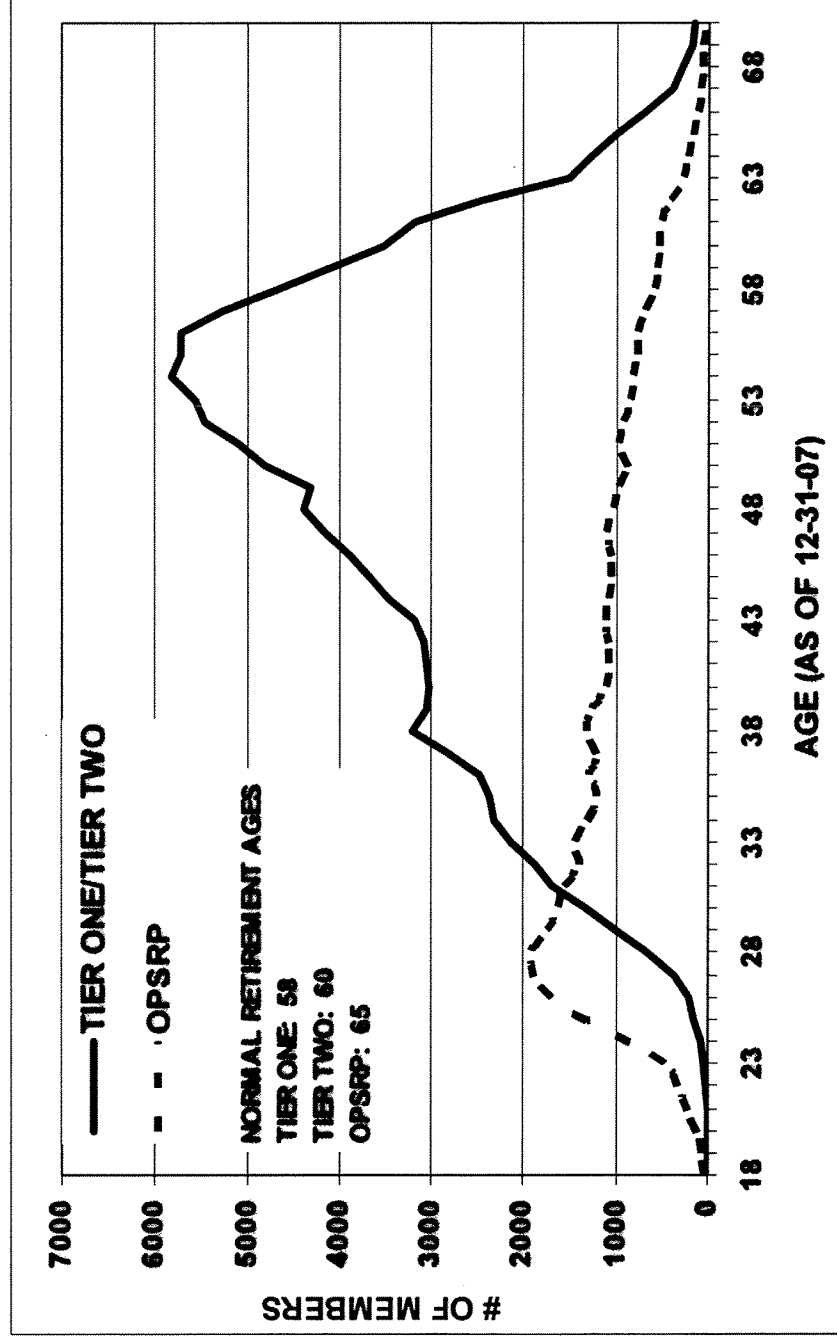
Kentucky Pension Reform Work Group

Oregon PERS

- Statutorily created in 1946
- 870 employers; 95 percent of Oregon's public employees – state, local government, and schools
- \$59 billion fund (as of August 31, 2008); one of nation's largest retirement funds
- Oregon Investment Council; top tier investment performance
- Investments generated 85 percent of 2007 revenue
- PERS Board: governance and policy oversight

Oregon PERS (continued)

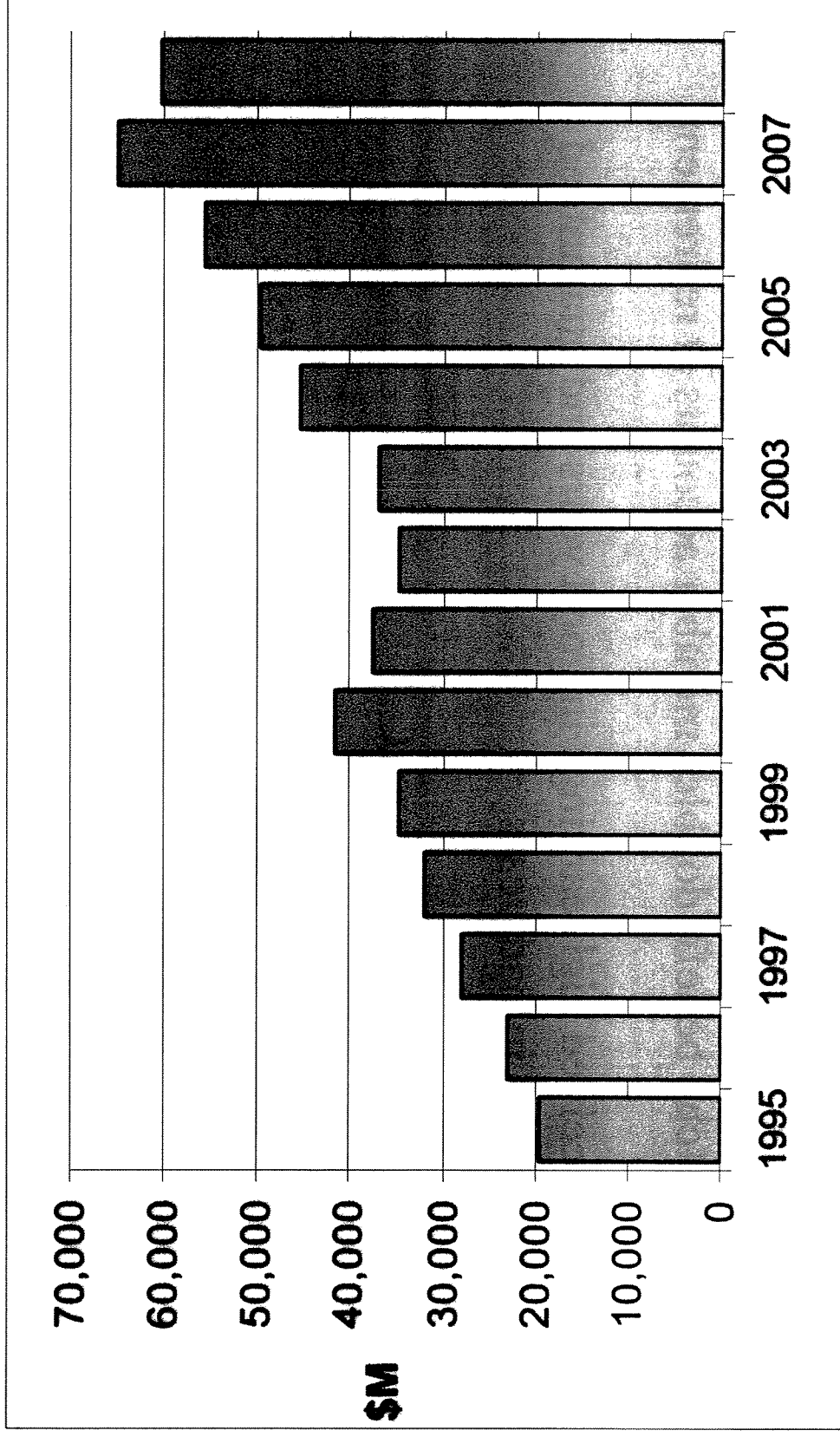
- 320,000 members and retirees: 167,000 active; 48,000 inactive; and 105,000 retirees
- 55,000 eligible to retire by age or service



Oregon PERS (continued)

- Average 6,000 retirements per year; peaked at 12,500 in 2003
- Average annual benefit for FY 2007 retirees: \$27,000
- Average annual benefit for all living retirees: \$23,300
- \$2.4 billion paid annually to retirees living in Oregon; \$300 million in 49 other states and \$6 million in 47 other countries

Net Plan Assets (Fiscal Year Ending June 30)



The PERS Trail Before Reform

- Members get “best of three” benefit calculations: Full Formula, Formula Plus Annuity, and Money Match
- “Money Match” benefit doubles member accounts at retirement
- Members received high earnings in good years and guaranteed 8 percent earnings in bad years
- Actuarial factors not kept current
- \$17 billion unfunded actuarial liability (UAL) emerges

The PERS Trail Before Reform (continued)

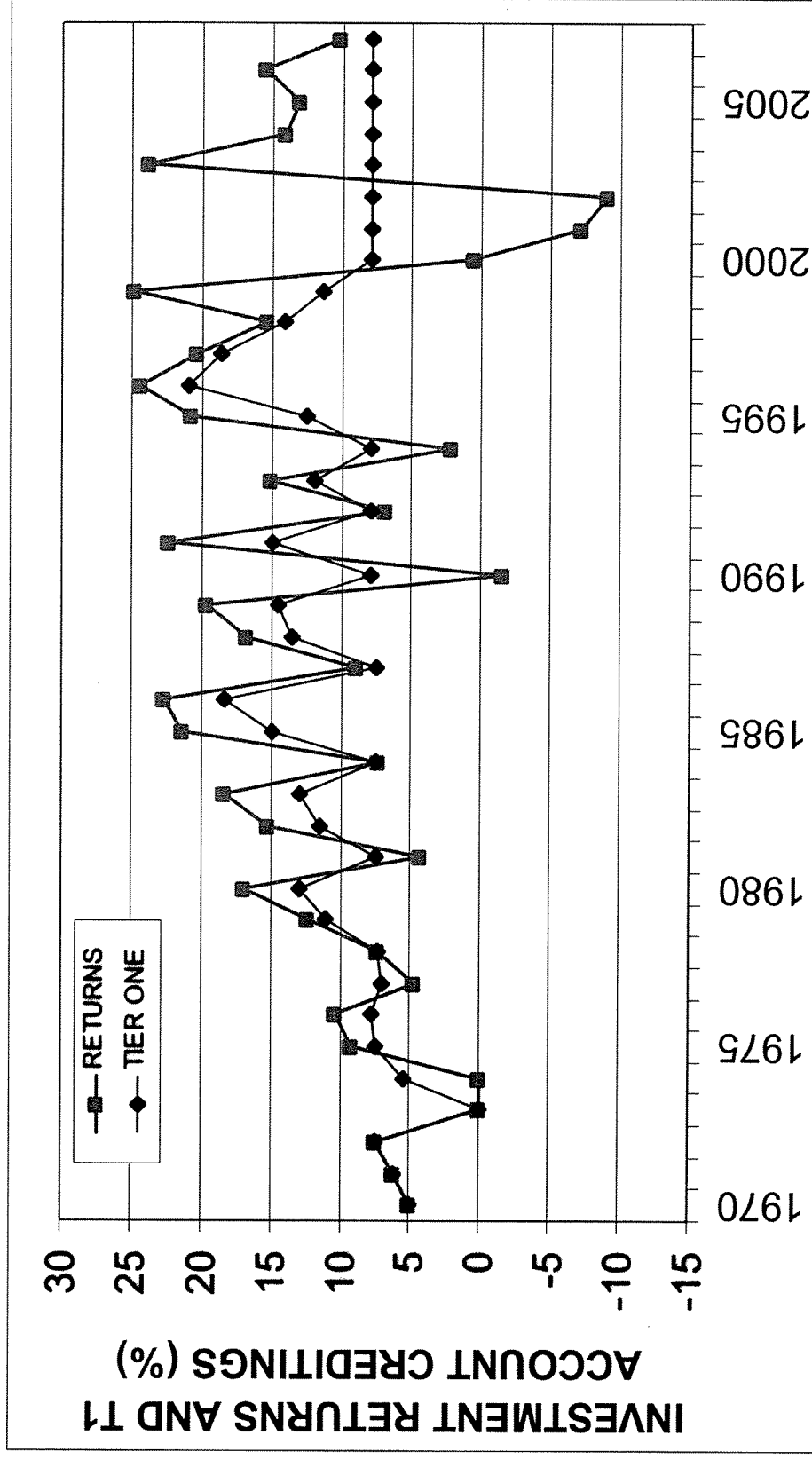
- Earnings crediting in good years doubles member accounts several times within a short time span

Year	1996	1997	1998	1999
Account crediting (%)	21.0	18.7	14.1	20.0

- Money Match benefits soar; becomes predominate retirement calculation
- Tier One accounts receive 8 percent “guarantee” during 2000-2002 market downturn

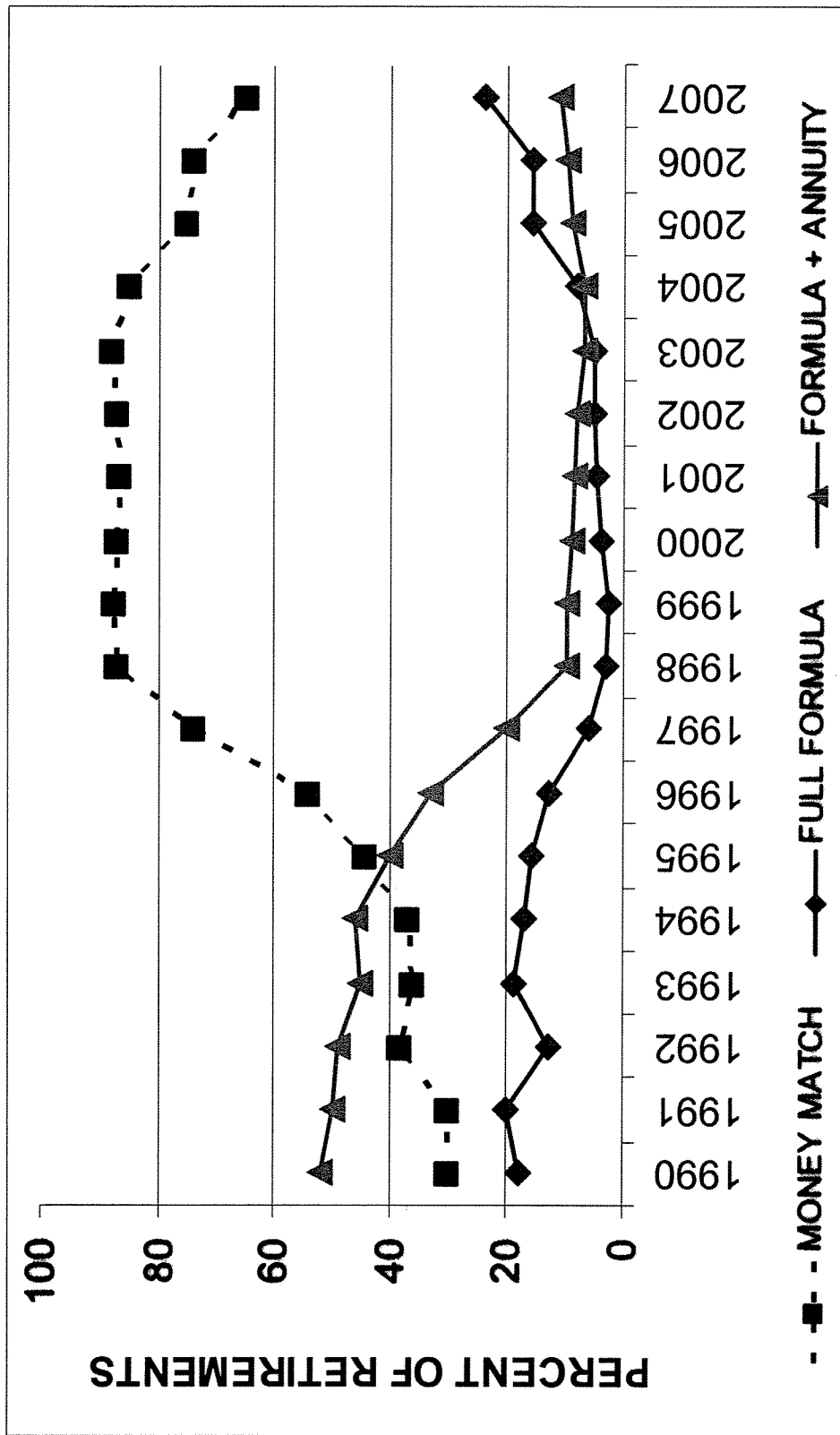
The PERS Trail Before Reform (continued)

Earnings crediting to Tier One accounts



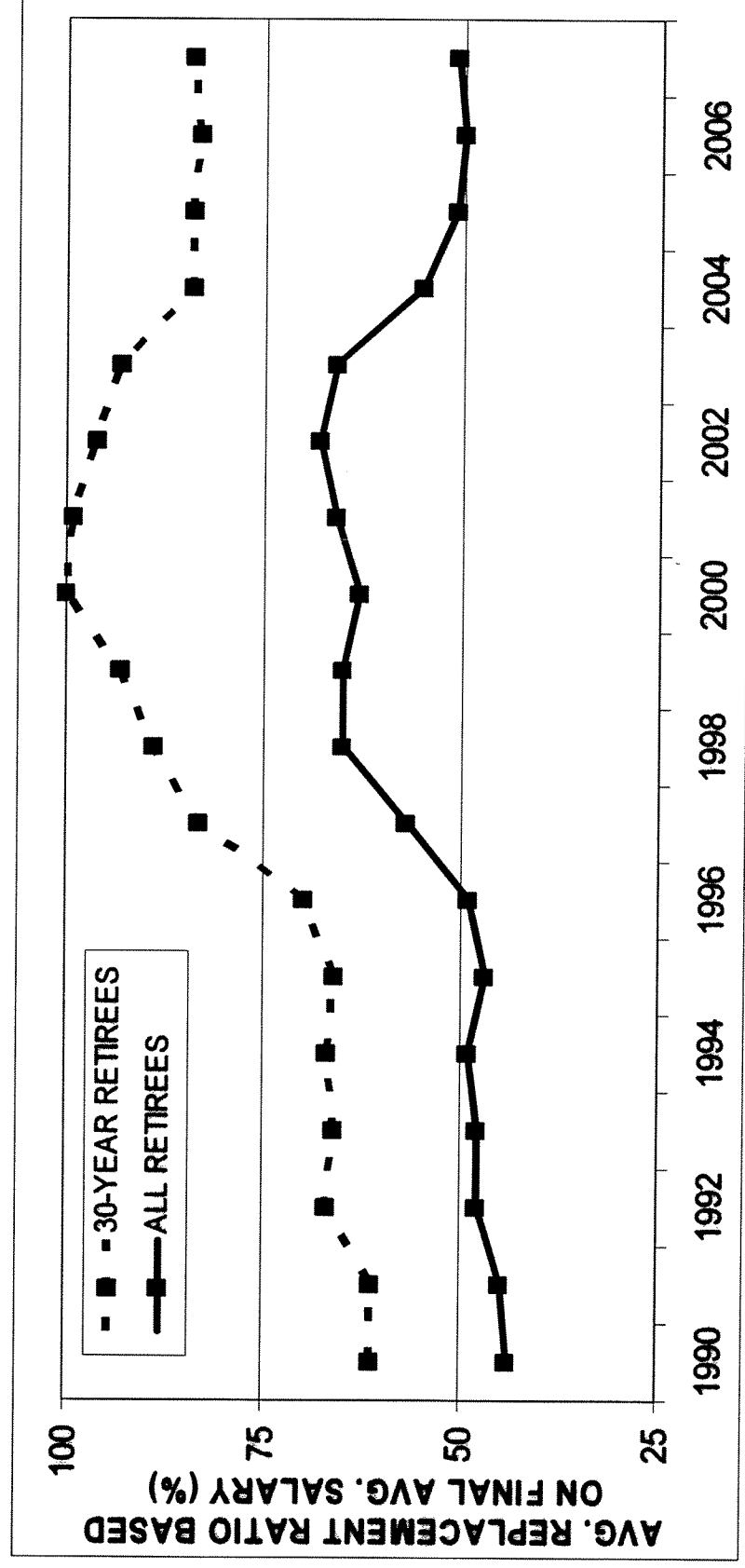
The PERS Trail Before Reform (continued)

Retirement benefit calculation trends



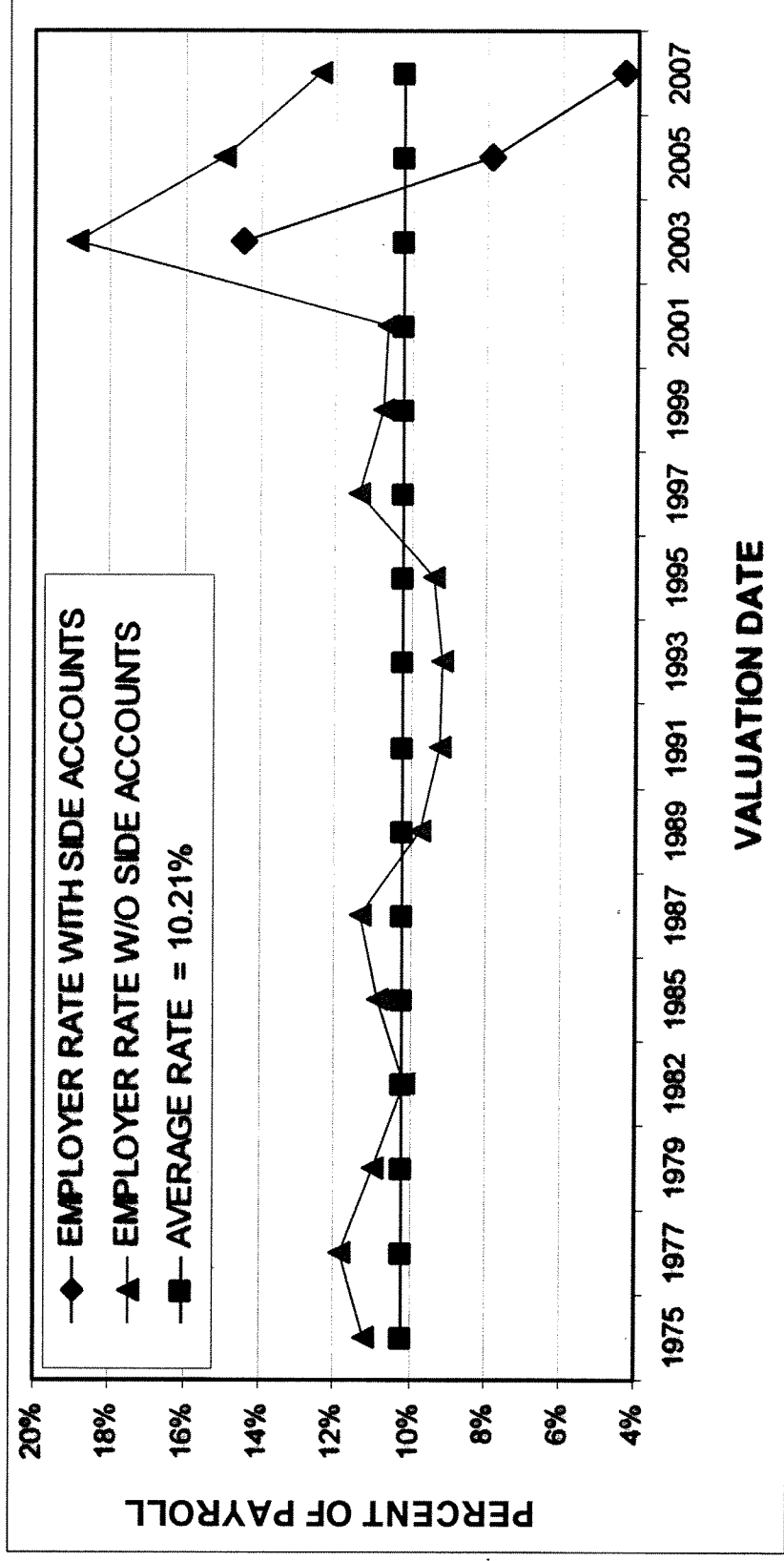
The PERS Trail Before Reform (continued)

- Investment losses and increasing liabilities create \$17 billion UAL (65 percent funded)
- PERS retirement benefits approach or exceed final salaries



The PERS Trail Before Reform (continued)

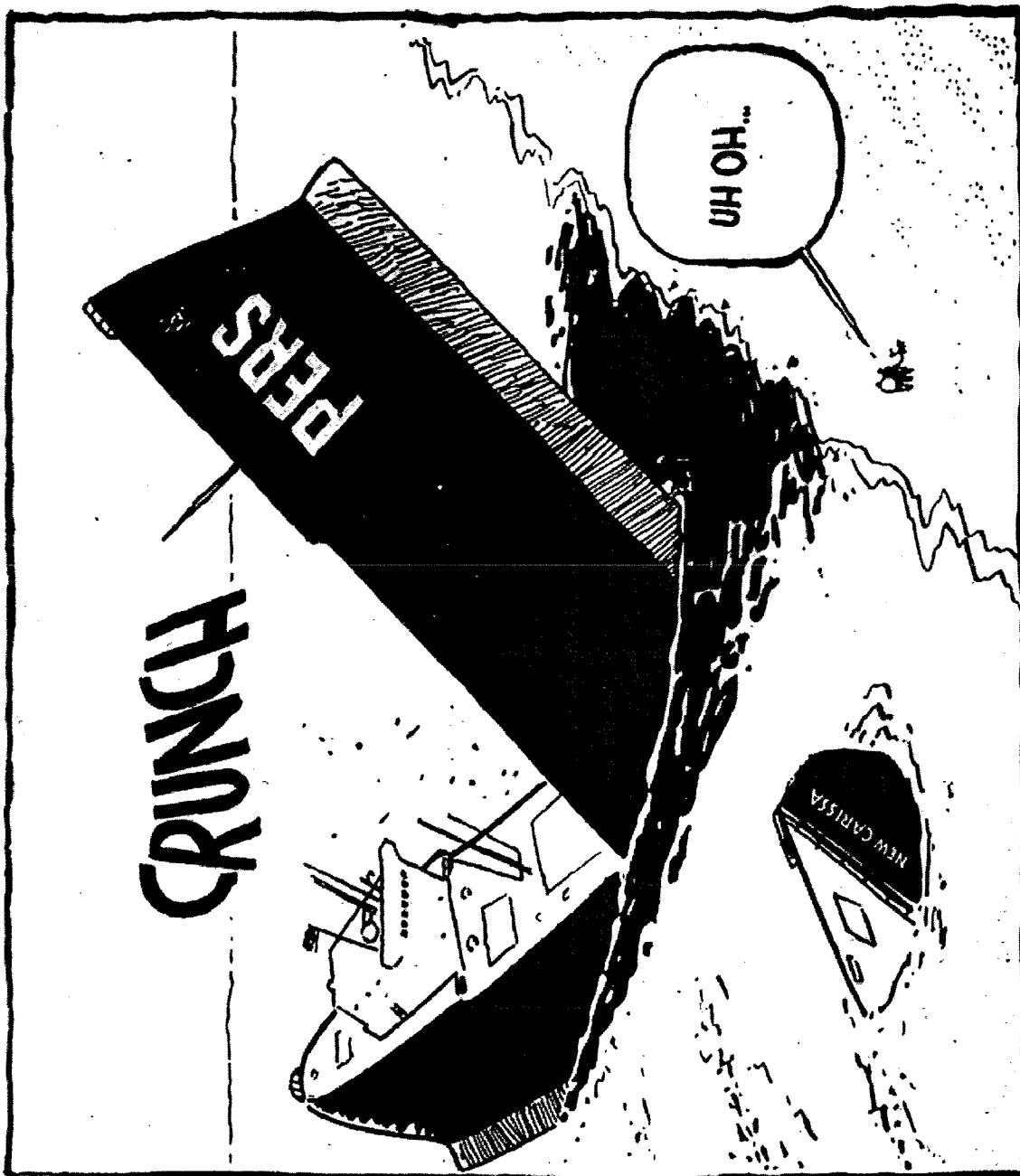
- Employer rates projected to increase to 27 percent of covered salary; each percentage point equals \$70 million per year



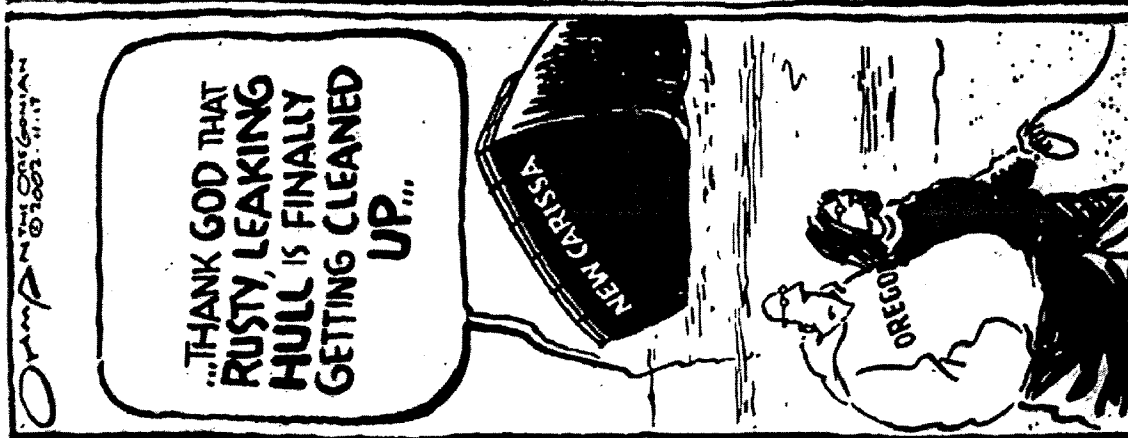
- PERS becomes a major issue in 2002 Governor's race and top legislative issue in 2003 session

Pre-PERS Reform Headlines

- “Soaring price of PERS bludgeons public agencies”
Oregonian, 2002
- “New PERS costs rock public sector”
Oregonian, 2002
- “PERS rate hike outrageous”
Oregon Public Broadcasting, 2002
- “PERS rates to skyrocket in 2003”
Statesman Journal, 2002
- “PERS shortfall empties piggy bank for services”
Statesman Journal, 2003



CRUNCH



*Orp N THE OREGONIAN
© 2003 "11"*



THE 28 DAYS AND 28 NIGHTS OF OREGON FLOODS...

PERS

Original artwork by [illegible]





On a day in the Oregonian 1955-61

OH, RELAX... IT'S
PROBABLY A FALSE
ALARM...



PERS

PERS Reform Changes and Timelines

January - August 2003: PERS reform bills enacted

July 2003: Updated actuarial factors developed and applied

July 2003: COLAs frozen for 21,000 retirees

August 2003: Oregon Public Service Retirement Plan (OPSRP) implemented for new public employees

September 2003: Five-member Board replaces 12-member

January 2004: Six percent member contribution redirected to new Individual Account Program (IAP)

2003 and 2004: No regular account earnings credited to Tier One members

Trail Switchbacks: Reform Laws Challenged

March 2005: Oregon Supreme Court's *Strunk* ruling upholds three key PERS reforms:

- Actuarial factors required to be kept current (reviewed every two years)
- Member contributions redirected to Individual Account Program (market returns with no guarantee or employer match)
- Tier One earnings crediting restrictions and reserve requirements (earnings over 8 percent now reserved for bad years)

Trail Switchbacks: Reform Laws Challenged

March 2005: Oregon Supreme Court's *Strunk* ruling overturns PERS reforms that:

- Prohibited earnings crediting to Tier One members in bad years (PERS must credit 8 percent annually)
- Froze retirees' COLAs to recover 1999 earnings overcrediting (PERS must grant COLAs annually)

Backtracking on Trail: *Strunk/Eugene* Project

2005-2009: Oregon Supreme Court decisions and Settlement Agreement require PERS to:

- Reduce 1999 earnings crediting from 20 to 11.33 percent for 150,000 members and retirees
- Credit 8 percent to Tier One members for 2003 and 2004
- Recalculate 45,000 benefits to reflect revised earnings crediting
- Reinstate COLAs for retirees that were frozen

Oregon Trail

2007: CIRCUIT COURT -
CANNOT COLLECT
BENEFIT OVERPAYMENTS

Oregon
City

OREGON

2008: 9TH U.S.

CIRCUIT
COURT OF
APPEALS -
UPDATED
ACTUARIAL
FACTORS OK

2007: OREGON SUPREME
COURT - COLLECT STRUNK
CASE ATTORNEY FEES
FROM MEMBERS/RETIRES

IDAHO

WYOMING

2005: OREGON SUPREME
COURT OVERTURNS SOME
REFORMS; REDO ACCOUNTS

NEBRASKA

2004: NEW

RETIREMENT
PROGRAMS
IMPLEMENTED

2003:
PERS
REFORM AS

1999 EARNINGS
OVERCREDITING

1946-1996:
ONE PERS
PROGRAM

2005-2009: ADJUST
ACCOUNTS AND BENEFITS
FOR 1999 EARNINGS

New Trail: PERS' Retirement Plan Components

- One major program for 50 years
- Three major programs added since 1996; two in the last five years

Hire date	Plan			
	Tier One	Tier Two	OPSRP Pension Program	Individual Account Program
Before January 1, 1996	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
January 1, 1996 thru August 28, 2003		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
August 29, 2003 or after			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

- All members now participate in two programs, with up to three different accounts (regular, variable, Individual Account Program)

Four Retirement Programs

Program	Type of Member Benefits	Member Account(s) Subject to Losses	Benefit Calculation Methods	Formula Factors (final average salary x years of service x factor set by statute)	Full Formula Salary Replacement (30-Year Career)
Tier One	Hybrid DB/DC	Yes for DC & variable; no for regular account	Money Match, Full Formula, Formula + Annuity	1.67% general service; 2.0% police & fire (1.00% general service; 1.35% police & fire for Formula + Annuity)	50%
Tier Two	Hybrid DB/DC	Yes	Money Match, Full Formula	1.67% general service; 2.0% police & fire	50%
OPSRP Pension Program	DB	N/A	Full Formula	1.50% general service; 1.80% police & fire	45%
Individual Account Program	DC	Yes	N/A	N/A	~15-20% (projected at 8% annual return)

IAP Created by Legislature (2003)

- Provided a compromise middle ground between defined contribution versus defined benefit proposals
- Allowed a greater portion of investment risk to be shared with members
- Stabilized Money Match liability for legacy Tier One and Tier Two members by slowing growth of legacy member accounts
- Integral part of the defined benefit plan created under the new OPSRP program
- Approximately 206,000 participants since January 1, 2004 (167,000 active; 35,000 inactive)

IAP Funding and Distribution

- Member contributes 6 percent of salary
- Contributions for existing members began January 1, 2004
- New members begin contributions after a 6-month waiting period and must work in a qualifying position (600 hours per year; can be for multiple concurrent employers, e.g., substitute teachers)
- Annual contributions averaged \$430 million since program inception
- Total IAP account value was \$2.15 billion as of December 31, 2007
- Retirees receive lump-sum payout or installment payments over 5, 10, 15, or 20 years (monthly, quarterly, or yearly) or over anticipated lifetime expectancy. Each distribution must be at least \$200

IAP Investment and Crediting

- Invested as part of overall PERS Fund; diversified, long-term portfolio
- Annual earnings crediting based on overall portfolio returns net of investment and administrative expenses
- No self-directed investment
- Returns net of expenses averaged 12.5 percent from 2004-2007

2004	2005	2006	2007
12.77%	12.80%	14.98%	9.46%

- 2008 returns through August 31, 2008 were negative 7.49 percent

IAP Administration

External

- Third party administrator (TPA) for record keeping, account website, distribution processing, and tax reporting

Internal

- Employer reporting and prior period adjustments processing
- Contributions, employer billing and collection, and transfer to State Treasury for investment
- Intake and processing for account withdrawal and retirement applications
- Customer service delivery, annual statements, and issue resolution

IAP Lessons Learned

- Membership eligibility screening results in a large number and variety of prior period adjustments
- Problems with electronic employer reporting and complex membership eligibility rules can lead to uneven contributions and earnings disputes
- Flat-rate administrative cost deductions in early years appeared excessive and onerous (now deduct administrative costs before earnings crediting)
- Split administration (internal and TPA) has been challenging for all aspects of program, particularly distribution processing and related customer service
- Insufficient program planning and development timeframe (four months) required major remediation in the program's second year

Oregon's Trail Pays Off

- Reforms plus good earnings and pension obligation bonds close \$17 billion UAL hole in three years
- System funded at 112 percent with another \$2.5 billion in reserves as of December 31, 2007
- Employer rates peaked at 15 percent; will range from 5 to 12 percent in 2009
- Named “2007 Public Plan Sponsor of the Year” and declared “the best funded pension system in the country”
- System still vulnerable to investment return volatility but better able to get ahead with good earnings and absorb poor earnings

New Compass Headings

- Consider all interests in meeting fiduciary obligations
- Provide predictable and stable employer rates
- Protect funded status by critically evaluating assumptions
- Maintain equity across generations of taxpayers
- Be an accurate and credible information source
- Make decisions in an open, transparent manner
- Provide adequate, affordable, and sustainable retirement benefits
- Remember that all pension systems pay retirement benefits. Beyond that, any resemblance may be purely accidental

Lessons Learned on Oregon's Trail

- The quickest way out of hole is to first stop digging
- It ain't what you don't know that gets you in trouble, it's what you know for sure that just ain't so
- If you're riding ahead of the herd, take a look back now and then to make sure it's still there
- Never kick a cow chip on a hot day
- Always drink upstream of the herd
- There are two theories on arguing with a retiree - neither one works
- Nothing very good, or very bad, lasts very long

KENTUCKY PUBLIC PENSION WORKING GROUP

DEFINED CONTRIBUTION SUBCOMMITTEE

ACTUARIAL CONSULTING ANALYSIS

October 2008

Personal Background

- Fellow of Society of Actuaries and Enrolled Actuary
- over thirty years of pension plan consulting, primarily with corporate plans
- extensive experience with defined contribution conversions and administration
- worked with legislature and administration on pension reform

Areas to Be Covered

- the design challenge
- the operational challenge
- what has been done so far?
 - House Bill 1
 - other significant 2008 bills
- retirement benefit philosophy
 - benefit adequacy
 - defined benefit vs. defined contribution focus
- possible DC plans
- summary

Number One Design Challenge

■ Inviolable Contract -- Essentially No Changes in Pension Benefits for Existing Participants

■ Exception is annual COLA (cost-of-living) increases for retirees

■ AS A RESULT, CHANGES IN PLAN DESIGN AND PLAN STRUCTURE CANNOT REDUCE THE UNFUNDED ACTUARIAL LIABILITY (UAL) OR FUTURE ACCRUALS FOR EXISTING EMPLOYEES

Number One Operational Challenge

Meet the Funding Schedule in HB 1

- significant annual cost increases
- 100% of ARC by 2025
- KERS-non now at 35%

UAL is Only Reduced by:

- FUNDING the Actuarially Required Contribution
- Favorable Actuarial Experience/Assumptions

What Did HB 1 Accomplish? -- Amount of Pension

For New Employees

- Extended Requirements for Unreduced Retirement
- Increased Requirements for Early Retirement
- Reduced Benefit Accrual Factors at Full Retirement
- Graded Benefit Accrual Factors prior to Full Retirement
- Tightened Definition of Final Average Earnings

For All Participants

- Reduced COLA to 1.5%
- But does not pre-fund COLA

What did HB 1 Accomplish? -- Annual Cost for New Employees

		Employer Normal Cost -- Pension Only	
	Employee	Prior to HB 1	After HB 1
			Annual Payroll
KERS-Non	5.00%	2.97%	1.11%
			\$1,780,223,493
KERS-Haz	8.00%	6.31%	3.27%
			\$ 144,838,020
CERS-Non	5.00%	3.12%	1.21%
			\$2,076,848,328
CERS-Haz	8.00%	7.38%	4.66%
			\$ 459,998,956
SPRS	8.00%	8.97%	5.05%
			\$ 49,247,580

Note: For the non-hazardous groups, a new employee is paying over 80% of the pension cost. Typical corporate 401(k) match is 50% of the first 6% deferred.

Comparison of KERS Non-Hazardous Costs

Annual Pension Cost for New Employees

Normal Cost Primary Difference from HB 1

House Bill 1

1.11%

Revised Senate Proposal

1.65%

Employee Choice: Matched
1% DC or Full DB after 5 yrs.

Original Senate Proposal

2.40%

1% of Ee Contribution to a
Matched DC Account

Original House Proposal

1.31%

Rule of 85 for Unreduced
Retirement

Prior to House Bill 1

2.97%

Benefit Adequacy

As a general rule, retirement industry professionals believe that the employer's retirement system plus Social Security should provide a replacement ratio of 70-90% of pre-retirement income.

These are two of the components of the "Three Legged Stool" of retirement income. The third leg is personal savings.

Under HB 1, a thirty year retiree's replacement ratio will be:

Pension	52.5%
Social Security	<u>30.0%</u>
Total	82.5%

Since many participants retire from KRS before age 65, they may not be eligible for Social Security immediately and would have a lower ratio initially. However, this will be partially offset by the value of retiree medical coverage.

By comparison, a thirty year KTRS participant will retire with 75% of FAC from the system. Teachers generally do not participate in Social Security, but do have retiree health coverage.

What Is The Focus? -- Defined Benefit

- What will you have at retirement?
- It will pay monthly for as long as you (and your spouse) will live
- Benefit Security

What Is The Focus? -- 401(k)

- the benefit of long term savings with compound interest
- tax advantages
- employer will match your savings - Free Money!!
- understandable: you know what you have
- choice: manage and move your investments
- access: loans, hardship withdrawals, portability
- lump sum payouts

What Does This Tell You?

- Defined Benefit is a retirement vehicle for long term employee
- 401(k) is a savings vehicle
 - the third leg of the retirement stool
 - added to Internal Revenue Code to reward savings
 - marketed by Fidelity (and others) to sell mutual funds
 - popular with employers
 - reduce employer cost; transfer to employee
 - avoid complex IRS and FASB rules

Why Offer A *Matched* 401(k)?

- Savings is good; rewarding savings is good
- Kentucky Deferred Comp is Popular;
 - over 30% of state employees now defer (with no match)

People will save more if matched

- Ky. School Districts with match average 72% participation
- Corporate Experience is 70-90%

Can offer sizzle

What Would A Match Cost?

- Assume a voluntary 401(k) for new employees only
- Matched 50% up to 2% of pay (employer cost is 1%)
- With 60% participation, first year cost is \$900,000
- Year five cost is \$3,300,000
- Cost continues to grow annually
- Total KERS-non payroll is \$1.8 billion (1% = \$18 million)
- Can reduce cost with design features
 - one year eligibility
 - 3-5 year vesting
 - dollar match maximum, *e.g.* \$300

Another DC Design--Appointee Accumulation Plan

restricted to non-merit employees earning \$50,000 per year
people who serve in significant positions, but
are only expected to work in government for a few years
participants contribute 5% of pay with 20% match
employer makes remainder of full contribution to KERS
cost is 1.0% of covered payroll, approx. \$800,000 per year
cost of match is less, if participation is voluntary
cost doesn't grow significantly over time

The KRS Funding Challenge

- HB 1 requires full ARC to KERS-non by 2025
- projected to exceed 40% of payroll by that date
- current budget is 10.01% for FY 2009 and 11.61% for FY 2010
- earlier ARC funding required for KERS-Haz and SPRS
- challenge is compounded by COLA that is not pre-funded

Summary

■ Inviolable Contract restricts design

Funding Schedule dominates operation

- Scheduled underfunding increases ARC annually
- Unfunded COLA will also increase ARC annually

HB 1 reduces cost for future employees

- lower annual cost than other proposals
- produces adequate retirement income

DB is a retirement system; DC a savings system

Matched 401(k) has real merit, but real cost